ALTO-SHAAM®

Holding Cabinet

Deluxe or Simple Control



ecosmart®

Models:
300-S
500-S
750-S
1000-S
1200-S
1000-UP
1200-UP

• INSTALLATION
• OPERATION
• MAINTENANCE

HALO HEAT®

24•7 Your Service Hotline 1-800-558-8744

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 USA
PHONE: 262.251.3800 • 800.558.8744 USA/CANADA FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
www.alto-shaam.com

PRINTED IN U.S.A.
MN-29423 • 07/12

Delivery 1
Unpacking 1
Safety Procedures and Precautions 2

Installation
- Installation Requirements 3
- Clearance Requirements 3
- Dimension Drawings, weights & capacities 4-7
- Universal Pan Slides/Side Racks and Shelves 8
- Options and Accessories 9
- Leveling 10
- Restraint Requirements - Mobile Equipment 10
- Drip Tray Installation 11
- Electrical Specifications 12-13
- User Safety Information 14
- Before Initial Use 14
- Heating Characteristics 14

Operating Instructions
- Simple Control Operation 15
- Deluxe Control Identification 16
- Deluxe Control Set-Up 16
- Deluxe Control Operation 16
- Heat Recovery 17
- Dough Proofing Instructions 17
- Deluxe Control Timer Programming 18
- General Holding Guidelines 19

Care and Cleaning
- Cleaning and Preventative Maintenance 20
- Protecting Stainless Steel Surfaces 20
- Cleaning Agents 20
- Cleaning Materials 20
- Clean Daily 21

Sanitation
- Sanitation/Food Safety 22
- Internal Food Product Temperatures 22

Service
- Thermostat Accuracy 23
- Trouble Shooting 24
- Exterior Service Views and Parts - SIMPLE CONTROL
  - 300-S 25-26
  - 500, 750, 1000, 1200-S. 27-28
  - 1000, 1200-UP. 29-30
- Exterior Service Views and Parts - DELUXE CONTROL
  - 500, 750, 1000, 1200-S. 31-32
  - 1000, 1200-UP.. 33-34
- Cable Heating Kits 35

Wire Diagrams

Always refer to the wire diagram(s) included with the unit for most current version.

Warranty
- Transportation Damage and Claims. . . . . Back Cover
- Limited Warranty . . . . Back Cover

ALTO-SHAAM®

DELIVERY

This Alto-Shaam appliance has been thoroughly tested and inspected to ensure only the highest quality unit is provided. Upon receipt, check for any possible shipping damage and report it at once to the delivering carrier. ***See Transportation Damage and Claims section located in this manual.***

This appliance, complete with unattached items and accessories, may have been delivered in one or more packages. Check to ensure that all standard items and options have been received with each model as ordered.

Save all the information and instructions packed with the appliance. Complete and return the warranty card to the factory as soon as possible to ensure prompt service in the event of a warranty parts and labor claim.

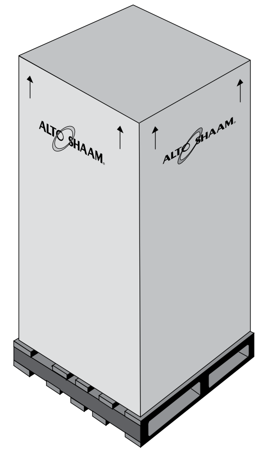
This manual must be read and understood by all people using or installing the equipment model. Contact the Alto-Shaam Tech Team Service Department if you have any questions concerning installation, operation, or maintenance.

NOTE: All claims for warranty must include the full model number and serial number of the unit.

UNPACKING

1. Carefully remove the appliance from the carton or crate.

   NOTE: Do not discard the carton and other packaging material until you have inspected the unit for hidden damage and tested it for proper operation.



2. Read all instructions in this manual carefully before initiating the installation of this appliance.

   DO NOT DISCARD THIS MANUAL.
   This manual is considered to be part of the appliance and is to be provided to the owner or manager of the business or to the person responsible for training operators. ***Additional manuals are available from the Alto-Shaam Tech Team Service Department.***

3. Remove all protective plastic film, packaging materials, and accessories from the appliance before connecting electrical power. Store any accessories in a convenient place for future use.

SAFETY PROCEDURES AND PRECAUTIONS

Knowledge of proper procedures is essential to the safe operation of electrically and/or gas energized equipment. In accordance with generally accepted product safety labeling guidelines for potential hazards, the following signal words and symbols may be used throughout this manual.

DANGER

Used to indicate the presence of a hazard that WILL cause severe personal injury, death, or substantial property damage if the warning included with this symbol is ignored.

WARNING

Used to indicate the presence of a hazard that CAN cause personal injury, possible death, or major property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor or moderate personal injury or property damage if the warning included with this symbol is ignored.

CAUTION

Used to indicate the presence of a hazard that can or will cause minor personal injury, property damage, or a potential unsafe practice if the warning included with this symbol is ignored.

NOTE: Used to notify personnel of installation, operation, or maintenance information that is important but not hazard related.

1. This appliance is intended to cook, hold or process foods for the purpose of human consumption. No other use for this appliance is authorized or recommended.
2. This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.
3. Any troubleshooting guides, component views, and parts lists included in this manual are for general reference only and are intended for use by qualified technical personnel.
4. This manual should be considered a permanent part of this appliance. This manual and all supplied instructions, diagrams, schematics, parts lists, notices, and labels must remain with the appliance if the item is sold or moved to another location.

NOTE

For equipment delivered for use in any location regulated by the following directive:

DO NOT DISPOSE OF ELECTRICAL OR ELECTRONIC EQUIPMENT WITH OTHER MUNICIPAL WASTE.

INSTALLATION

DANGER

IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, SERVICE, OR MAINTENANCE COULD RESULT IN SEVERE INJURY, DEATH, OR CAUSE PROPERTY DAMAGE.

READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

CAUTION

TO PREVENT PERSONAL INJURY, USE CAUTION WHEN MOVING OR LEVELING THIS APPLIANCE.

CAUTION

CAUTION! HOT SURFACE

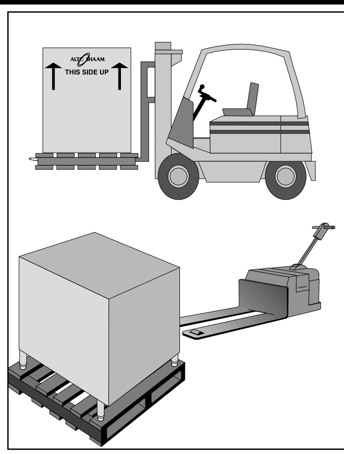
METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

DANGER

DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

SITE INSTALLATION

The Alto-Shaam Holding Cabinet must be installed in a location that will permit the oven to function for its intended purpose and to allow adequate clearance for ventilation, proper cleaning, and maintenance access.



Emissions testing conducted by Underwriters Laboratories, Inc.® was found to be in compliance with the applicable requirements of NFPA96: 2004 Edition, Par. 4.1.1.2. U.L emissions sampling of grease laden vapor resulted in a total of 0.55 milligrams per cubic meter with no visible smoke and is considered representative of all oven models in the line. Based on these results, hood installation and/ or outside venting should not be a requirement in most areas. Verify local codes for locations where more restrictive codes are applicable.

1. The oven must be installed on a stable and level surface.
2. **DO NOT** install this appliance in any area where it may be affected by any adverse conditions such as steam, grease, dripping water, high temperatures, or any other severely adverse conditions.
3. **DO NOT** store or use any flammable liquids or allow flammable vapors in the vicinity of this oven or any other appliance.
4. This appliance must be kept free and clear of any combustible materials.
5. This appliance must be kept free and clear of any obstructions blocking access for maintenance or service.

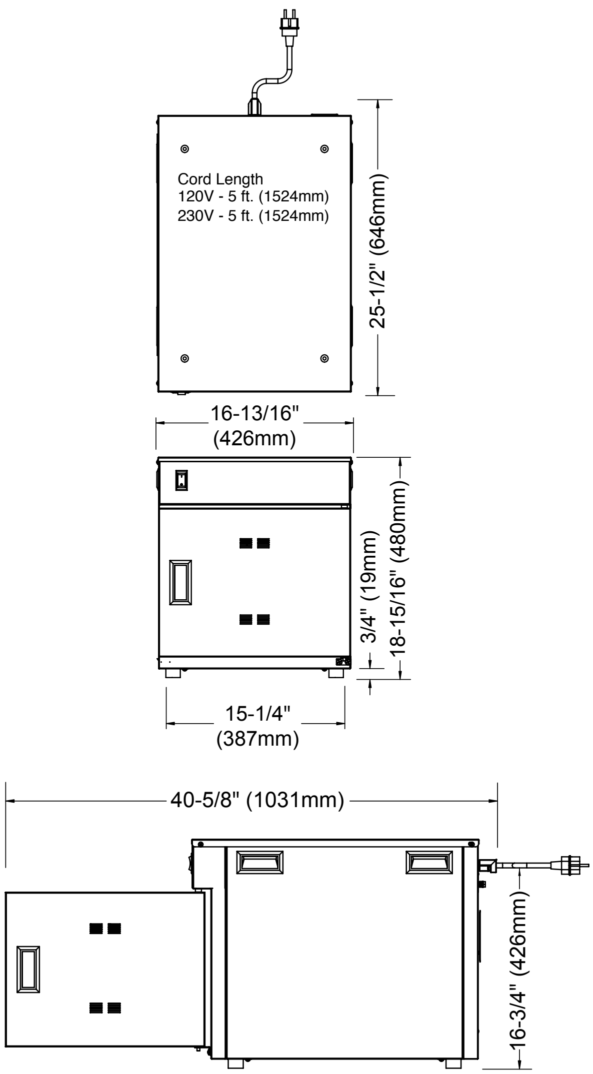
MINIMUM CLEARANCE REQUIREMENTS	
BACK	3" (76mm)
LEFT SIDE	1" (25mm)
RIGHT SIDE	1" (25mm)
TOP	2" (51mm)

NOTE

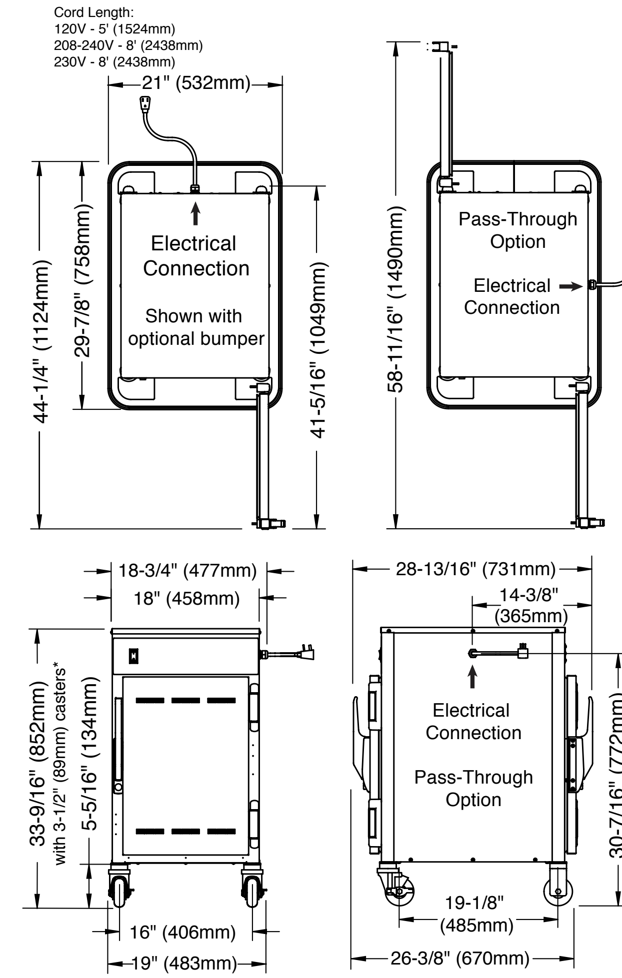
If the appliance has been unplugged for an extended period of time, the Real Time Clock may require recharging. Turn main breaker to the unit off for 10 seconds and then restore power. For more information, see Error Code E-60 in the Troubleshooting section of this manual.

INSTALLATION

Model 300-S



Model 500-S



*31-7/8" (809mm) - with optional 2-1/2" (64mm) casters
*35-1/4" (895mm) - with optional 5" (127mm) casters
*33-15/16" (861mm) - with optional 6" (152mm) legs

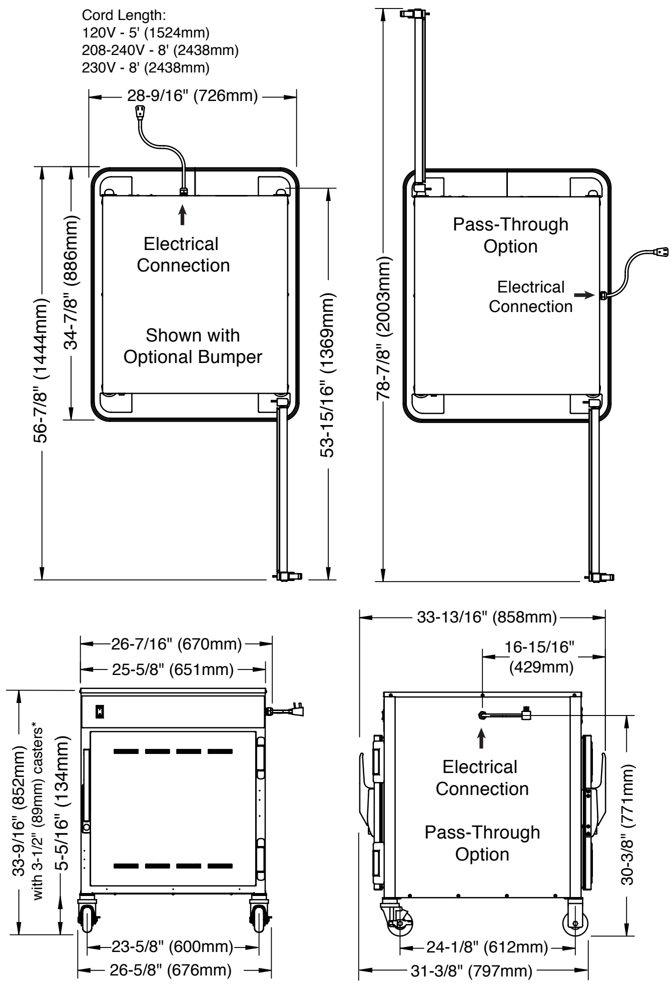
WEIGHTS AND CAPACITIES

300-S		
WEIGHT		
NET	65 lb (29 kg)	
SHIP	125 lb (57 kg)	
CAPACITY		
36 lbs (16 kg) MAXIMUM		
VOLUME MAXIMUM: 22.5 QUARTS (28,5 LITERS)		
	FULL-SIZE PANS:	GASTRONORM 1/1:
Three (3)	20" x 12" x 2-1/2"	(530mm x 325mm x 65mm)
Two (2)	20" x 12" x 4"	(530mm x 325mm x 100mm)
ON WIRE SHELVES ONLY		
	HALF-SIZE PANS:	
Six (6)	10" x 12" x 2-1/2"	(265mm x 325mm x 65mm)
Four (4)	10" x 12" x 4"	(530mm x 325mm x 100mm)

500-S		
WEIGHT		
NET	110 lb (50kg) EST.	
SHIP	150 lb (68kg)	
CAPACITY		
60 lbs (27 kg) MAXIMUM		
VOLUME MAXIMUM: 50 QUARTS (47.5 LITERS)		
FULL-SIZE PANS:		GASTRONORM 1/1:
Six (6)	20" x 12" x 2-1/2"	530mm x 325mm x 65mm
Three (3)	20" x 12" x 4"	530mm x 325mm x 100mm
HALF-SIZE SHEET PANS:		
Eleven (11)	18" x 13" x 1"	457mm x 330mm x 25mm

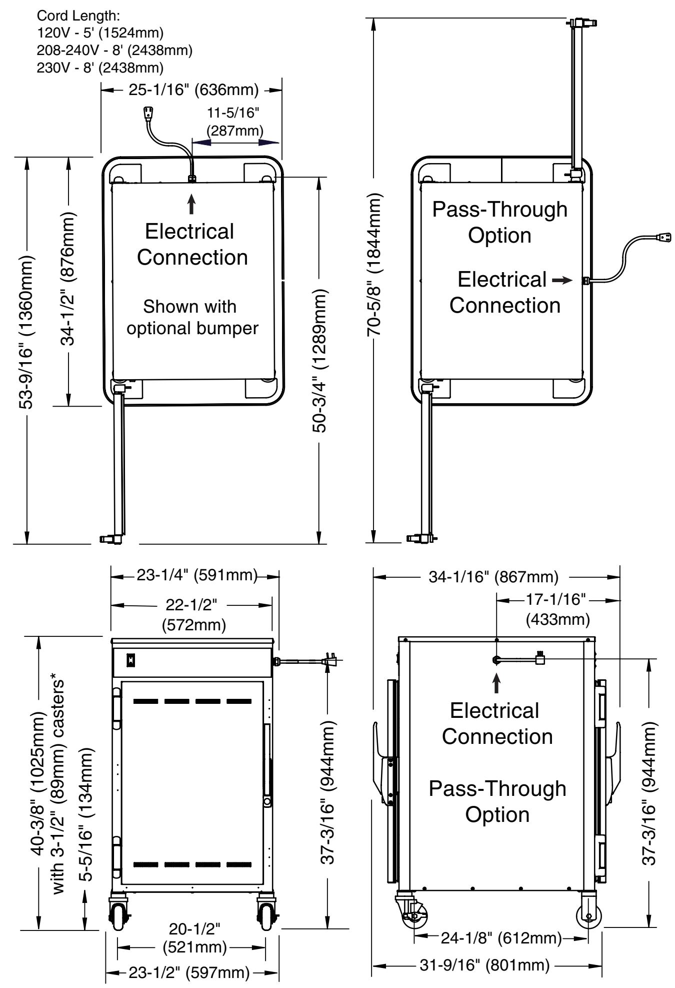
INSTALLATION

Model 750-S



*31-7/8" (809mm) - with optional 2-1/2" (64mm) casters
*35-1/4" (895mm) - with optional 5" (127mm) casters
*33-15/16" (861mm) - with optional 6" (152mm) legs

Model 1000-S



*38-11/16" (982mm) - with optional 2-1/2" (64mm) casters
*42-1/16" (1068mm) - with optional 5" (127mm) casters
*40-3/4" (1034mm) - with optional 6" (152mm) legs

WEIGHTS AND CAPACITIES

750-S

WEIGHT

NET	157 lb (69kg)
SHIP	228 lb (103kg) EST.

CAPACITY

120 lbs (54 kg) MAXIMUM
VOLUME MAXIMUM: 100 QUARTS (95 LITERS)

FULL-SIZE PANS:		GASTRONORM 1/1:
Ten (10)	20" x 12" x 2-1/2"	530mm x 325mm x 65mm
Six (6)	20" x 12" x 4"	530mm x 325mm x 100mm
Four (4)	20" x 12" x 6"	530mm x 325mm x 150mm

FULL-SIZE SHEET PANS (ON WIRE SHELVES ONLY):
Up to Six (6) 18" x 26" x 1" – *WITH ADDITIONAL SHELVES*

1000-S

WEIGHT

NET	175 lb (79kg) EST.
SHIP	223 lb (101kg) EST.

CAPACITY

120 lbs (54kg) MAXIMUM
VOLUME MAXIMUM: 60 QUARTS (76 LITERS)

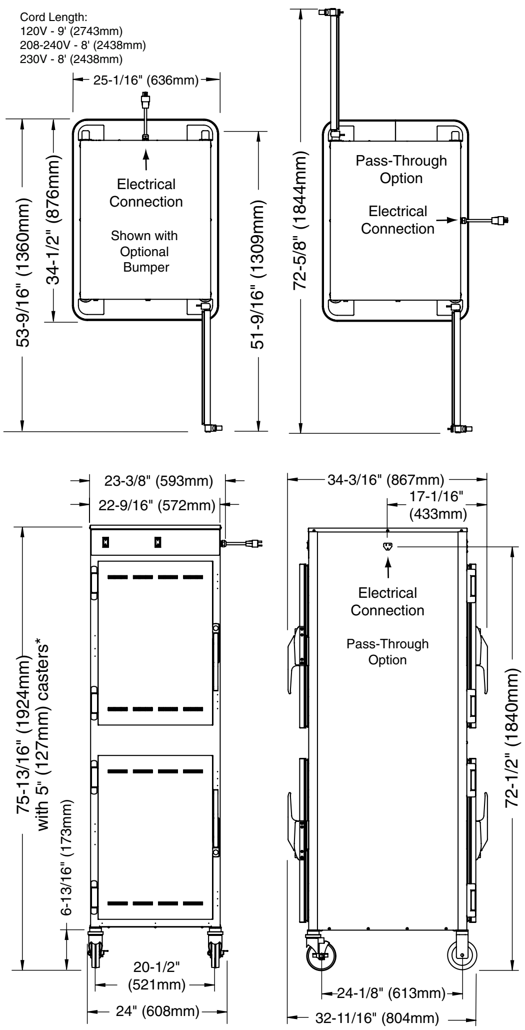
FULL-SIZE PANS:		GASTRONORM 1/1:
Four (4)	20" x 12" x 2-1/2"	530mm x 325mm x 65mm

— ON OPTIONAL WIRE SHELVES ONLY

FULL-SIZE SHEET PANS:
Eight (8) 18" x 26" x 1"

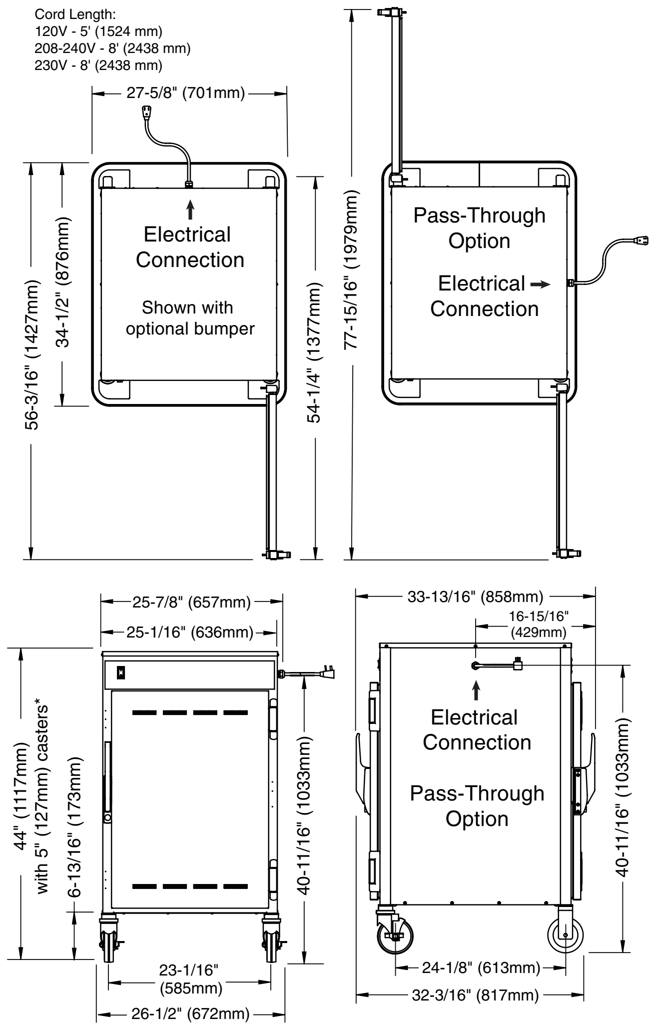
INSTALLATION

Model 1000-UP



*74-1/16" (1881mm) - with optional 3-1/2" (89mm) casters
*75-5/8" (1921mm) - with optional 6" (152mm) legs

Model 1200-S



*45-11/16" (1161mm) - with optional 3-1/2" (89mm) casters
*43-7/8" (1113mm) - with optional 6" (152mm) legs

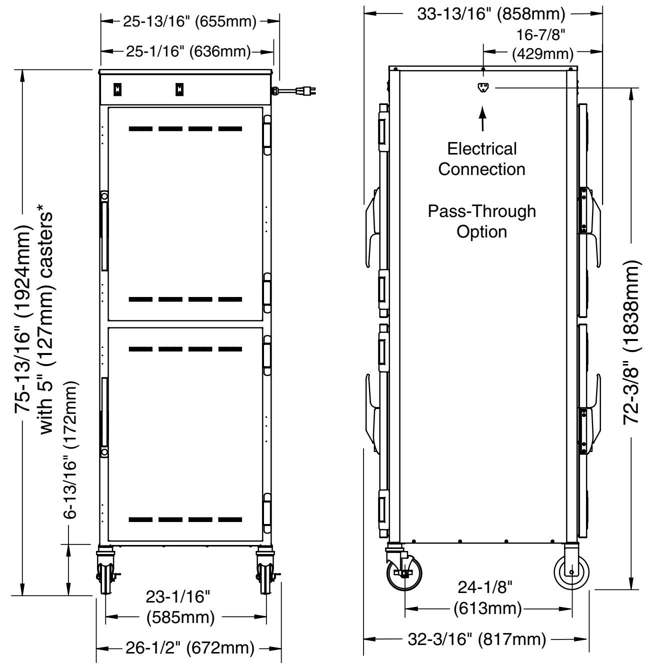
WEIGHTS AND CAPACITIES

1000-UP	
WEIGHT	
NET	282 lb (128kg)
SHIP	360 lb (163kg) EST.
CAPACITY (PER COMPARTMENT)	
120 lbs (54kg) MAXIMUM VOLUME MAXIMUM: 60 QTS (76 LITERS)	
FULL-SIZE PANS: Four (4) 20" x 12" x 2-1/2" — ON OPTIONAL WIRE SHELVES ONLY	GASTRONORM 1/1: 530mm x 325mm x 65mm
FULL-SIZE SHEET PANS: Eight (8) 18" x 26" x 1"	

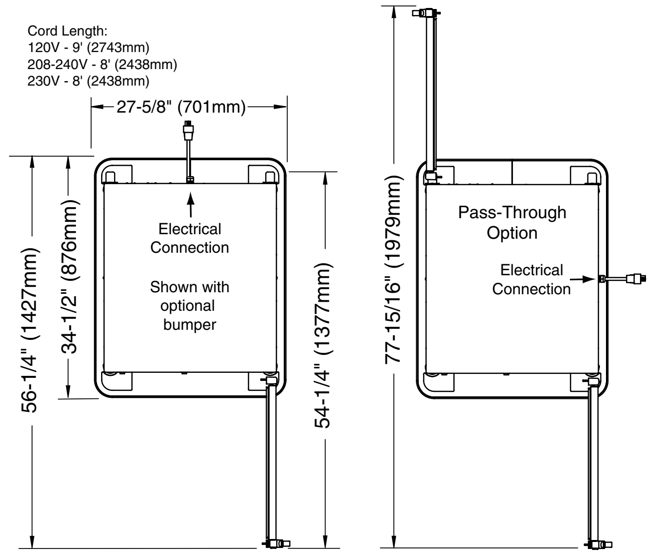
1200-S	
WEIGHT	
NET	179 lb (81kg) EST.
SHIP	224 lb (102kg) EST.
CAPACITY	
SEE NEXT PAGE	

INSTALLATION

Model 1200-UP



*74-1/16" (1881mm) - with optional 3-1/2" (89mm) casters
*75-5/8" (1921mm) - with optional 6" (152mm) legs



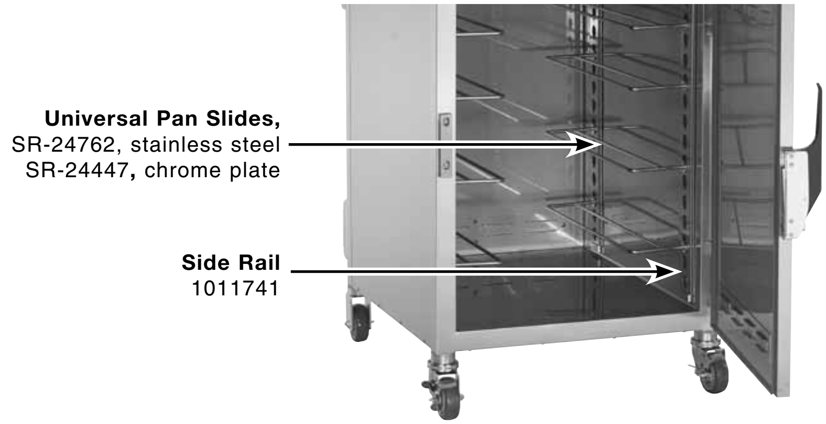
1200-UP	
WEIGHT	
NET:	333 lb (151g)
SHIP: (EST.)	393 lb (178 kg)

1200-S, 1200-UP CAPACITIES

CAPACITY - 1200-S, 1200-UP (PER COMPARTMENT)		
192 lbs (87kg) MAXIMUM • VOLUME MAXIMUM: 120 QUARTS (152 LITERS)		
Pan slides (2 per set) - 1-3/4 (44mm) centers		
Pan Size	**Four (4) sets of pan slides provided**	**Maximum capacity with additional pan slides**
FULL SIZE: 20" x 12" x 2-1/2" GN1/1: 530mm x 325mm x 65mm	Eight (8) pans - 2 per set of slides	Sixteen (16) pans - with 4 additional sets of pan slides
FULL SIZE: 20" x 12" x 4" GN1/1: 530mm x 325mm x 100mm	Eight (8) pans - 2 per set of slides	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 6" 530mm x 325mm x 150mm	Eight (8) pans - 2 per set of slides	NO ADDITIONAL CAPACITY
FULL SIZE SHEET PANS: 18" x 26" x 1"	Four (4) pans - 1 per set of slides	Sixteen (16) pans - with 12 additional sets of pan slides
Side Racks and Shelves		
Pan Size	**Three (3) shelves provided**	**Maximum capacity with additional shelves**
FULL SIZE: 20" x 12" x 2-1/2" GN1/1: 530mm x 325mm x 65mm	Sixteen (16) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 4" GN1/1: 530mm x 325mm x 100mm	Eight (8) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE: 20" x 12" x 6" GN1/1: 530mm x 325mm x 150mm	Eight (8) pans - 2 per side rack	NO ADDITIONAL CAPACITY
FULL SIZE SHEET PANS: 18" x 26" x 1"	Three (3) pans - 1 per shelf	Eight (8) pans with 5 additional shelves

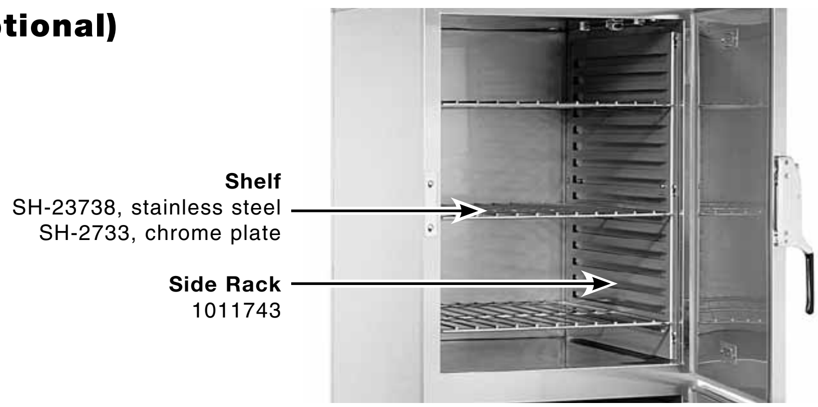
UNIVERSAL PAN SLIDES

Shown with universal pan slides.
Two (2) slides needed per pan.



SIDE RACKS AND SHELVES (optional)

As an alternative to universal pan slides, this unit can be ordered as a "side rack" model which is equipped with two (2) side racks and three (3) chrome plated wire shelves. It will accommodate full and half size US hotel and European gastronorm pans on the side racks or shelves, or sheet pans on shelves.



OPTIONS AND ACCESSORIES

MODEL >	300-S	500-S	750-S	1000-S	1200-S	1000-UP	1200-UP
DESCRIPTION	**PART NUMBER**						
Bumper, Full Perimeter	——	5011161	5010371	5009767	5012932	5009767	5012932
Carving Holder, Prime Rib	HL-2635	HL-2635	HL-2635	——	——	——	——
Carving Holder, Steamship (Cafeteria) Round	——	4459	4459	——	——	——	——
Caster Package 2-1/2" (64mm)	——	5008022	5008022	5008022	——	——	——
3-1/2" (89mm)	——	STANDARD	STANDARD	STANDARD	5008017	5008017	5008017
5" (127mm)	——	5004862	5004862	5004862	STANDARD	STANDARD	STANDARD
Caster Stand, 3" (76mm)	5015323	——	——	——	——	——	——
Door Assembly, Window	——	——	5013129	5012806	5012822	5012806	5012822
Door Lock with Key	——	LK-22567	LK-22567	LK-22567	LK-22567	LK-22567	LK-22567
Drip Pan, with Drain 1-7/16" (48mm)	——	14813	——	——	——	——	——
1-11/16" (43mm)	——	——	14831	——	5014448	——	5014448
1- 7/8" (48mm)	——	——	——	5005616	——	5005616	——
Drip Pan, without Drain 1-7/8" (48mm)	——	11898	——	11906	——	11906	——
1-1/4" (32mm)	PN-2122	——	——	——	——	——	——
Drip Tray, Door	——	5010736	5010391	5009716	——	——	——
Deluxe Control (FACTORY INSTALLED)	——	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE
Handle Kit, Push/Pull (SET OF FOUR)	STANDARD	55662	55662	55662	55662	55662	55662
Legs, 6" (152mm), Flanged	——	5011149	5011149	5011149	5011149	5011149	5011149
Pan Grid, Wire 18" x 26" (457mm x 660mm)	——	——	PN-2115	PN-2115	PN-2115	PN-2115	PN-2115
Probe, Internal Product Temp. (DELUXE ONLY)	——	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE
Security Panel with Key Lock	5015652	5013939	5013936	5013934	5013936	5013934	5013936
Shelf Chrome Wire	SH-2107	SH-2107	SH-2105	——	SH-2733	——	SH-2733
Chrome Wire, Pass-Through	——	——	SH-2327	——	——	——	——
Stainless Steel Wire	——	SH-2326	SH-2324	SH-2325	SH-23738	SH-2325	SH-23738
Stainless Steel, Rib Rack	——	——	SH-2743	——	——	——	——
Stainless Steel, Pass-Through	——	——	——	SH-2346	——	SH-2346	——
Side Rack Kit (FACTORY INSTALLED)	——	——	——	——	AVAILABLE	——	AVAILABLE
Stacking Hardware	——	5004864	5004864	5004864	5004864	——	——
Transportation Door Latch	5015662	——	——	——	——	——	——
Universal Angle Pan Slides Chrome	——	——	——	——	SR-24447	——	SR-24447
Stainless Steel	——	——	——	——	SR-24762	——	SR-24762
Water Reservoir, Pan	——	——	——	1775	1775	1775	1775
Water Reservoir, Pan Cover	——	——	——	1774	1774	1774	1774

CAUTION

Pass-through models with same side door hinging must be installed with flanged feet bolted to the floor to avoid tipping hazards.

STACKING INSTRUCTIONS

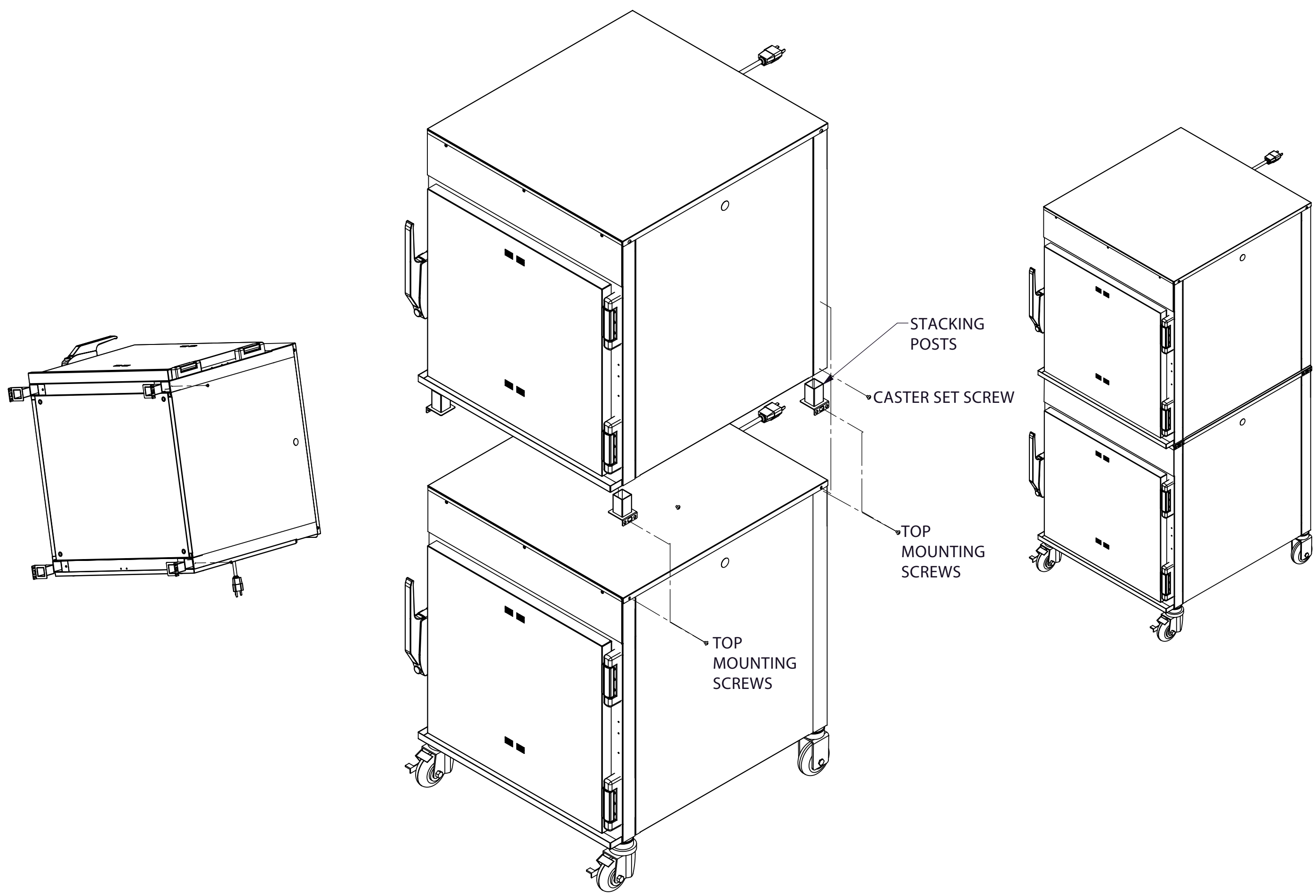
1) If the two appliances were shipped together from the factory, the top unit will have the casters already removed. A stacking kit will be included with the shipment.

If casters need to be removed: lay the unit on its back, and remove the set screw on each caster. Pull the casters out of the unit.

2) While appliance is laid on its back, insert one stacking post in each of the four corners of the upper unit. Secure the stacking posts using one screw and two flat washers that come with the stacking kit.

Note: The flange on the stacking posts must face the outside of the unit.

3) Remove the four top mounting screws from the lower unit. Place the upper appliance, which has the stacking posts installed, on top of the bottom unit. Center the top unit from front to back. Re-install the four screws through the flange of the four stacking posts.

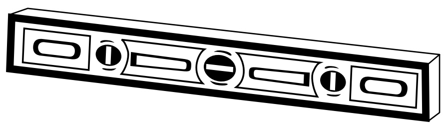


Stacking Configurations	
Model	**Can be stacked with:**
300-S	300-S or 300-TH/III No Stacking Hardware needed. Align dimples at top and bottom of units. It is recommended that the legs be removed from the top unit before stacking.
500-S	500-S, 500-TH-II or 500-TH/III
750-S	750-S, 750-TH-II, 750-TH/III, 767-SK or 767-SK/III
1000-S	1000-S, 1000-TH/III, 1000-SK/II or 1000-SK/III

SITE INSTALLATION

A number of adjustments are associated with initial installation and start-up. It is important that these adjustments be conducted by a qualified service technician. Installation and start-up adjustments are the responsibility of the dealer or user. These adjustments include but are not limited to thermostat calibration, door adjustment, leveling, electrical hook-up and installation of optional casters or legs.

LEVELING



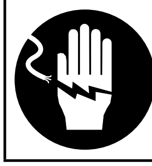
Level the oven from side-to-side and front-to-back with the use of a spirit level. For ovens installed with casters, it is important that the installation surface be level due to the probability of frequent oven repositioning.

We recommend checking the level of the oven periodically to make certain the floor has not shifted nor the oven moved.

NOTE: Failure to properly level this oven may result spills from a semi-liquid product.

RESTRAINT REQUIREMENTS —MOBILE EQUIPMENT

WARNING



RISK OF ELECTRIC SHOCK.

Appliance must be secured to building structure.

Any appliance that is not furnished with a power supply cord but that includes a set of casters must be installed with a tether. Adequate means must be provided to limit the movement of this appliance without depending on or transmitting stress to the electrical conduit. The following requirements apply:

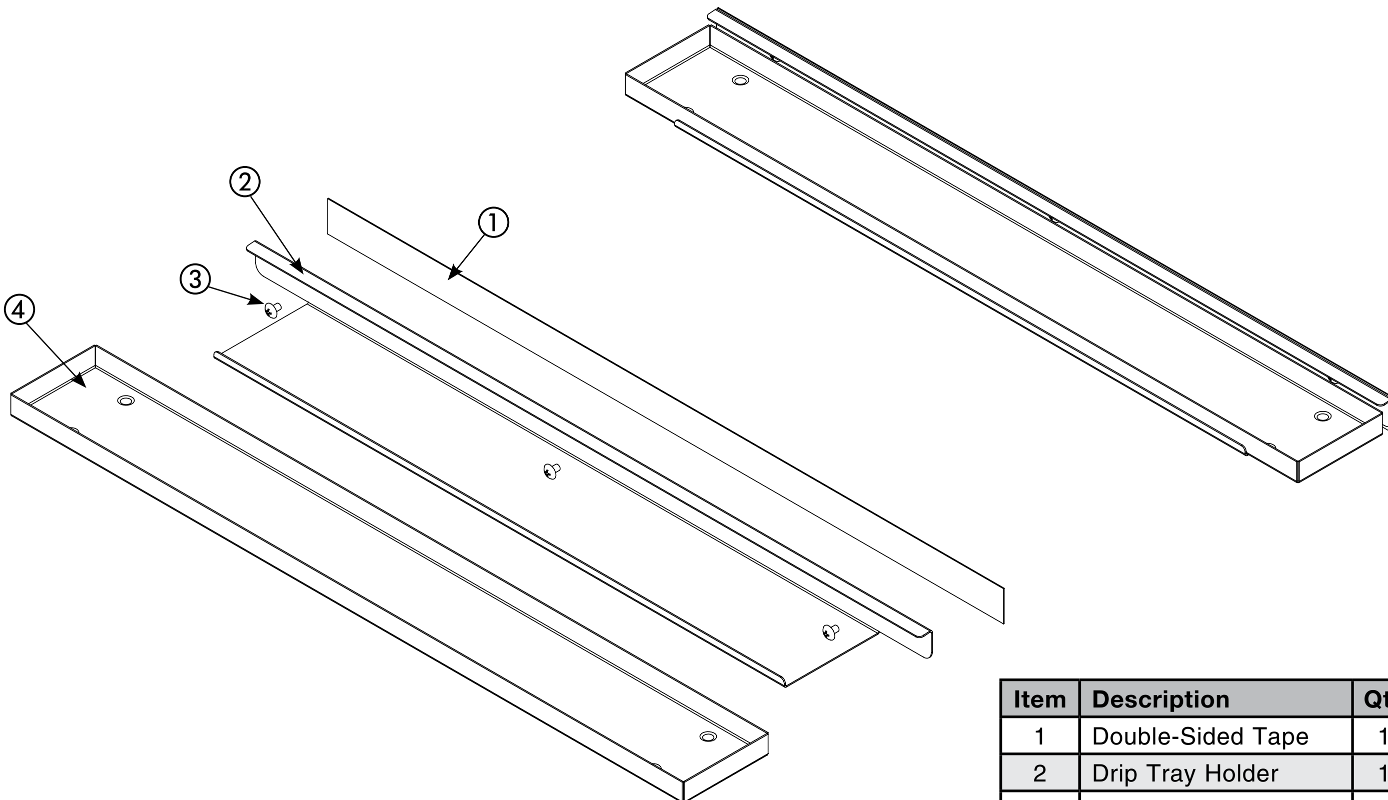
1. Maximum height of casters is 6" (152mm).
2. Two of the casters must of be the locking type.
3. Such mobile appliances or appliances on mobile stands must be installed with the use of a flexible connector secured to the building structure.

A mounting connector for a restraining device is located on the upper back flange of the appliance. A flexible connector is not supplied by nor is it available from the factory.

INSTALLATION

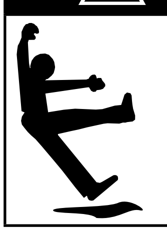
SITE INSTALLATION

DRIP TRAY INSTALLATION INSTRUCTIONS - 500, 750, 1000, 1200



Item	Description	Qty
1	Double-Sided Tape	1
2	Drip Tray Holder	1
3	8-32 x 1/4" Phil Screw	3
4	Drip Tray	1

1. Poke holes through double-sided tape ① which is attached to the back of drip tray holder ②.
2. Remove backing on double-sided tape ①.
3. Put screws ③ through holes and attach drip tray holder ② to unit.
4. Optional - apply a line of food-grade silicone caulk along top edge of drip tray holder ② to seal.
5. Place drip tray ④ in drip tray holder ②.



⚠ WARNING

FAILURE TO PROPERLY INSTALL THE DRIP TRAY CAN OR WILL CAUSE MAJOR EQUIPMENT DAMAGE AND WILL RESULT IN A LEAKAGE HAZARD THAT CAN CAUSE PERSONAL INJURY.

INSTALLATION

ELECTRICAL

1. An identification tag is permanently mounted on the cabinet.
2. Plug cabinet into a properly grounded receptacle ONLY, positioning the unit so the power supply cord is easily accessible in case of an emergency.

   Arcing will occur when connecting or disconnecting the unit unless all controls are in the "OFF" position.
3. If necessary, a proper receptacle or outlet configuration as required for this unit, must be installed by a licensed electrician in accordance with applicable, local electrical codes.

For CE approved units: To prevent an electrical shock hazard between the appliance and other appliances or metal parts in close vicinity, an equalization-bonding stud is provided. An equalization bonding lead must be connected to this stud and the other appliances / metal parts to provide sufficient protection against potential difference. The terminal is marked with the following symbol.

Hard wired models:

Hard wired models must be equipped with a country certified external allpole disconnection switch with sufficient contact separation.

If a power cord is used for the connection of the product an oil resistant cord like H05RN or H07RN or equivalent must be used.

NOTE: CE approved appliances must be connected to an electrical circuit that is protected by an external GFCI outlet.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

⚠ DANGER

ENSURE POWER SOURCE MATCHES VOLTAGE IDENTIFIED ON APPLIANCE RATING TAG.

DANGER

To avoid electrical shock, this appliance MUST be adequately grounded in accordance with local electrical codes or, in the absence of local codes, with the current edition of the National Electrical Code ANSI/ NFPA No. 70. In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1 or local codes.

INSTALLATION

ELECTRICAL

300-S

VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	6.7	.80	NEMA 5-20P 20A-125V PLUG
230	1	50/60	3.9	.80	CEE 7/7 220-230V PLUG

500-S

VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	8.4	1.0	NEMA 5-15P, 15A-125V PLUG
208 240	1 1	60 60	3.7 4.2	.76 1.0	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
230	1	50/60	4.1	.95	CEE 7/7, 220-230V PLUG

750-S

VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	9.0	1.1	NEMA 5-15P, 15A-125V PLUG
208 240	1 1	60 60	3.9 4.5	.81 1.1	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
230	1	50/60	4.3	1.0	CEE 7/7, 220-230V PLUG

1000-S

VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	8.0	.96	NEMA 5-15P, 15A-125V PLUG
208 240	1 1	60 60	3.5 4.0	.72 .96	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
230	1	50/60	3.9	.88	CEE 7/7, 220-230V PLUG

1200-S

	VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	120	1	60	8.0	.96	NEMA 5-15P, 15A-125V PLUG
208 - 240 1000W	208 240	1 1	60 60	3.5 4.0	.72 .96	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
208 - 240 2000W	208 240	1 1	60 60	6.9 8.0	1.4 1.9	NO CORD OR PLUG
230	230 1000W 230 2000W	1 1	50/60 50/60	3.9 7.7	.88 1.8	CEE 7/7, 220-230V PLUG

1000-UP

VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	1	60	16.0	1.9	NEMA 5-20P, 20A-125V PLUG
208 240	1 1	60 60	7.0 8.0	1.4 1.9	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
230	1	50/60	7.7	1.8	CEE 7/7, 220-230V PLUG

1200-UP

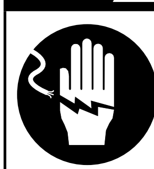
	VOLTAGE	PHASE	CYCLE/HZ	AMPS	kW	CORD & PLUG
120	120	1	60	16.0	1.9	NEMA 5-20P, 20A-125V PLUG
208 - 240 2000W	208 240	1 1	60 60	7.0 8.0	1.4 1.9	NEMA 6-15P, 15A-250V PLUG (USA ONLY)
208 - 240 4000W	208 240	1 1	60 60	14.0 16.0	2.9 3.8	NO CORD OR PLUG
230	230 2000W 230 4000W	1 1	50/60 50/60	7.7 15.4	1.8 3.5	CEE 7/7, 220-230V PLUG

Wire diagrams are located inside the bonnet of the unit.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

⚠ DANGER



ENSURE POWER SOURCE MATCHES VOLTAGE IDENTIFIED ON APPLIANCE RATING TAG.

INSTALLATION

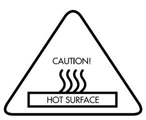
USER INFORMATION

USER SAFETY INFORMATION

This appliance is intended for use in commercial establishments where all operators are familiar with the purpose, limitations, and associated hazards of this appliance. Operating instructions and warnings must be read and understood by all operators and users.

1. Unit must be connected to the appropriate power source.
2. Use hand protection when handling hot items.
3. Preheat the unit for 30 minutes before use.
4. Be certain only hot foods are placed into the unit.

CAUTION



METAL PARTS OF THIS EQUIPMENT BECOME EXTREMELY HOT WHEN IN OPERATION. TO AVOID BURNS, ALWAYS USE HAND PROTECTION WHEN OPERATING THIS APPLIANCE.

BEFORE INITIAL USE:

1. Clean both the interior and exterior of the unit with a damp, clean cloth and mild soap solution. Rinse carefully.
2. Clean and install the cabinet side racks. Shelves should be positioned with the curved end up and toward the back of the unit (reach-in models).

HEATING CHARACTERISTICS

The cabinet is equipped with a special heating cable. Through this Halo Heat concept, the heating cable is mounted against the walls of the unit to provide an evenly applied heat source controlled by a thermostat. The design and operational characteristics of the unit eliminate the need for a moisture pan or a heat circulating fan. Through even heat application, the quality of food products is maintained up to several hours or more.

OPERATION

OPERATING INSTRUCTIONS

1. **PREHEAT AT 200°F (93°C) FOR 30 MINUTES BEFORE LOADING FOOD.**

   Push power switch to "ON" position. The unit will begin operating at the previous set temperature.

2. Press the **Up** or **Down Arrow Keys** to 200°F (93°C). Pressing and releasing the Arrow Keys will increase the set point by 1 degree. Pressing and holding the Arrow Key will increase set point by 10 degrees. When Arrow Key is released, a new set point temperature is set. The ***Set*** temperature will appear in the **Digital Display** and the **Heat Indicator Light** will illuminate. Press the **Temperature Display Key** for three seconds at any time to display the ***Actual*** inside air temperature.

   To toggle between *Set* and *Actual*:

   Factory default is to display ***Set*** temperature in the **Digital Display**. To display ***Actual*** temperature:

   Press and hold the **Temperature Display Key** and the Up Arrow Key for 5 seconds. The control will show [ACT], then show the ***Actual*** temperature.

   Repeat to toggle to ***Set*** point [SET].

   Press the **Temperature Display Key** at any time to display the alternate temperature.

3. When the inside air temperature reaches the desired holding temperature, the **Heat Indicator Light** will turn off.

4. **Load the cabinet with hot food only.**
   The purpose of the holding cabinet is to maintain hot food at proper serving temperatures. Only hot food should be placed into the cabinet. Before loading the unit with food, use a food thermometer to make certain all food products are at an internal temperature range of 140° to 160°F (60° to 71°C). All food not within the proper temperature range should be heated before loading into the holding cabinet.

5. Check to make certain the cabinet door is securely closed, and using the **Up** and **Down Arrow Keys**, set the temperature to 160°F (71°C).

   THIS WILL <u>NOT</u> NECESSARILY BE THE FINAL SETTING.

   The proper temperature range for the food being held will depend on the type and quantity of product. Whether or not the door vents should be open or closed will also depend on the type of food being held. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item to assure maintenance of the proper temperature range. Reset the holding temperature accordingly.

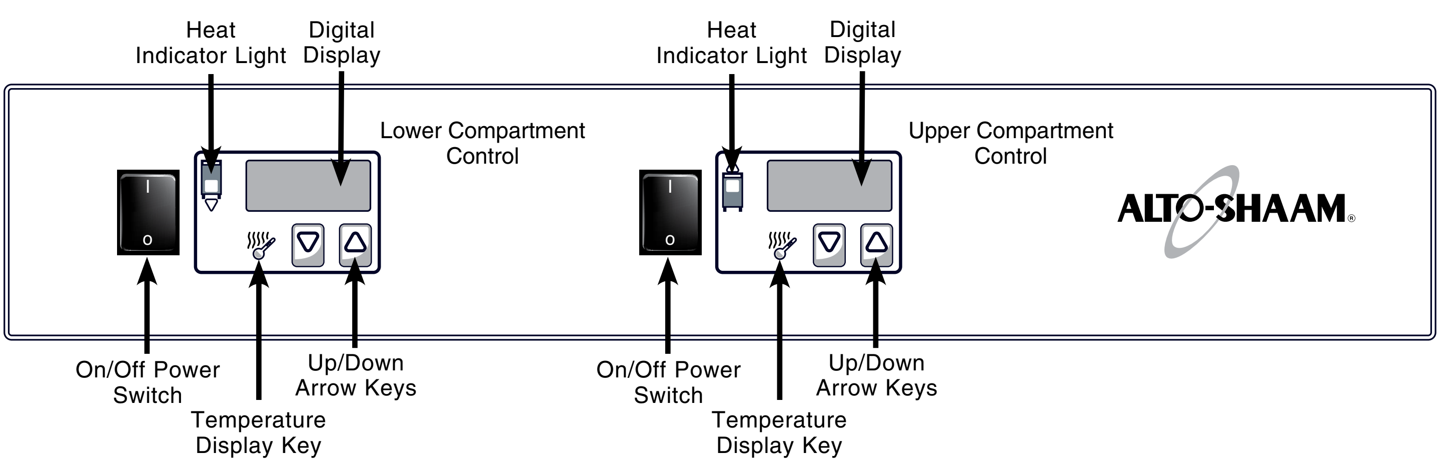
TO TOGGLE BETWEEN FAHRENHEIT AND CELSIUS

Press the **Temperature Display Key** *at any time to display the alternate temperature.*

The factory default is Fahrenheit. To change to Celsius:

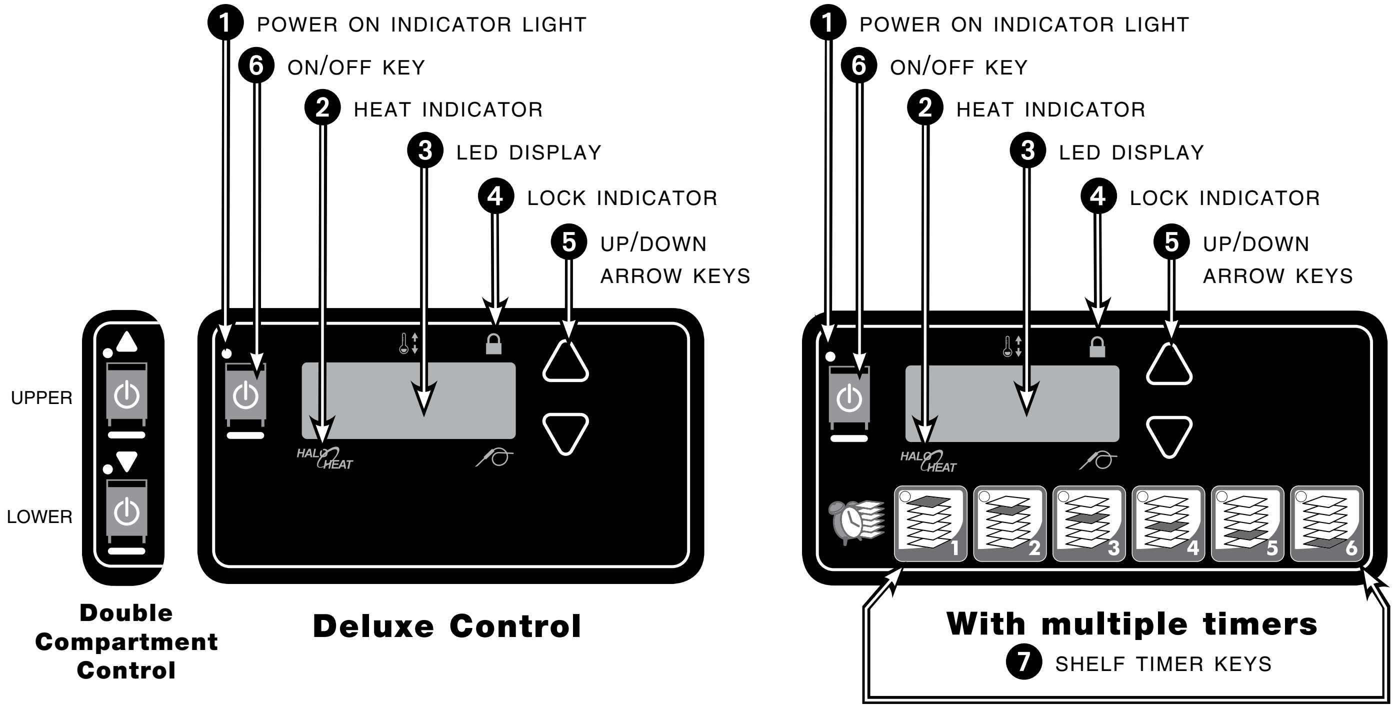
1. Press and hold the **Temperature Display Key** and the **Down Arrow Key** for 5 seconds.
2. The control will show [C] for 3 seconds to verify selection and then show the temperature. (Set Point or Actual, whichever the user has selected) in ºC.
3. Repeat to toggle to Fahrenheit.

Note: With a power failure, factory test, etc., the control will retain the ºC or ºF setting selected by the user when power is restored.



OPERATION

DELUXE CONTROL OPTION



DELUXE CONTROL SET-UP

ON/OFF KEY

Press the ON/OFF key once and the power indicator light will illuminate. Press and hold the ON/OFF key until the LED display turns off (at least three seconds) and power indicator light goes out.

UP/DOWN ARROW KEY

The UP and DOWN arrow keys are used for a variety of settings when selecting the holding temperature. If an arrow key is pressed and released the display will show the current set temperature for four seconds. If an arrow key is held (at least eight seconds), the value will change at a rapid rate. Pressing an arrow key when the set temperature is displayed will increase/decrease the temperature by 1°. Pressing and holding an arrow will increase/decrease the temperature by 10°.

ENABLE / DISABLE BEEPER

A beeper sounds when an error code is displayed. To choose between beeper on and beeper off mode, the control must be off, then press and hold the DOWN arrow key until either “ON” or “OFF” is shown in the LED display. Press either arrow button to toggle the beeper mode.

FAHRENHEIT/CELSIUS

°F/°C

With the control off, to choose between Fahrenheit and Celsius, press and hold the UP arrow key until either °F or °C is shown in LED display. Press either arrow key to toggle the temperature scale.

The control has a four-digit LED display. When the display is on, it will show current holding temperature, as well as diagnostic information.

CONTROL LOCK

The warmer controls can be locked so that no changes can be made to the set temperature.

To lock the display, press and hold the ON/OFF key and the Up Arrow key at the same time. The lock LED will illuminate. When the lock LED is illuminated, additional programming will not be functional other than the key sequence required to unlock the panel.

To unlock the display, press and hold the ON/OFF key and the Down Arrow key at the same time. The lock LED will extinguish. The panel keys will resume normal function.

OPERATION

DELUXE CONTROL OPERATION

1. **Preheat at 200°F (93°C) for 30 minutes.**
   Press the ON key, and set the temperature to 200°F (93°) by using the UP/DOWN arrow keys. Allow a minimum of 30 minutes preheating time before loading the holding cabinet with food. Closing the vents on the inside of the door will speed the preheating process. The LED heat indicator light will go "Out" after approximately 30 minutes preheat time, or when the air temperature inside the unit reaches the temperature set by the operator. The Set indicator will light up anytime the temperature is set or reset.
2. **Load with hot food only.**
   The purpose of the holding cabinet is to maintain hot food at proper serving temperature. Only hot food should be placed into the cabinet. Before loading the cabinet with food, use a food thermometer to make certain all products are at an internal temperature range of 140° to 160°F (60° to 71°C). Any food product not within the proper temperature range should be heated before loading into the holding cabinet.
3. **Reset the control to 160°F (71°C).**
   Check to make certain the cabinet door is securely closed, and reset to 160°F (71°C) by using the UP/DOWN keys

   THIS WILL NOT NECESSARILY BE THE FINAL SETTING.

   The proper temperature range and OPEN or CLOSED door vent position will depend on the type and quantity of product. When holding food for prolonged periods, it is advisable to periodically check the internal temperature of each item with a food thermometer to assure maintenance of the proper temperature range of 140° to 160°F (60° to 71°C).

SureTemp™ Heat Recovery

The patented SureTemp™ heat recovery system in this unit will immediately compensate for any loss of heat when the door is opened. In order to maintain a more consistent cavity temperature, the control will automatically apply heat to the unit's interior while the door is open and for a short time after the door is closed. If the door remains open for more than three minutes, the control will sound three rapid beeps every ten seconds until the door is closed.

DOUGH PROOFING INSTRUCTIONS

SIMPLE AND DELUXE CABINETS

With the addition of a pan of water, warming cabinets can be used for proofing dough. A water reservoir pan (#1775) and pan cover (#1774) is available as an option from Alto-Shaam.

1. Remove dough from retarder or refrigerator and allow covered product to set up at room temperature.
2. Set holding thermostat temperature to 95°F (35°C).
3. Pour approximately 2 quarts (c. 2 liters) of hot water into the optional water reservoir pan and place the pan on the bottom surface of the compartment. The temperature of the water should be 140° to 180°F (60° to 82°C).
4. Allow the cabinet to preheat for 45 to 60 minutes.
5. Remove covering and place dough in preheated cabinet.
6. Allow dough to remain in the cabinet until it nearly doubles in size.
7. Remove product from cabinet and bake according to product manufacturer's directions. Brush with eggwash if desired.

NOTE: The above proofing procedure is a suggested guideline only. Due to variation from product to product, including quality and product weight, close adherence the product manufacturer's instructions is strongly recommended.

OPERATION

DELUXE CONTROL TIMER PROGRAMMING

Timer Programming Information

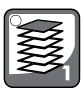
1. Turn On/Off Control Key OFF.



Press the On/Off Key until the display turns OFF (at least 3 seconds) and On/Off Key's Power Indicator Light goes out.

Note: The following steps can only be done when the Control is OFF.

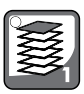
2. Set Shelf Timer Keys.



Press and hold a Shelf Timer Key (at least 3 seconds) until the countdown time is shown in the LED display. Use the Up or Down Arrow Key to change the time desired.

Time will display as HH:MM.

3. Set Additional Timer Keys.



Repeat step 2 for each Shelf Timer Key to be programmed.

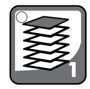
4. Turn On/Off Power Key ON.



Using the timer, press the On/Off key to turn ON unit. Power Indicator Light will illuminate.

The Multiple Shelf Timer Key option is available for hot food holding units with the Deluxe Control. These keys monitor food safety by using a timer-based "First-In, First-Out" product management system. Products should be cooked to HACCP recommended internal temperature and then held in the unit. The Timer system allows operator to select holding times when the unit is loaded. Multiple timer keys correspond to various pan locations in the holding unit. As the timers expire, the LED will flash quickly in order to notify the operator.

5. Press Shelf Timer Key.



Activate the shelf timer by pressing the corresponding button. Shelf LED display will illuminate and the count down will begin. The timer will display as HH:MM when the remaining time is >60 minutes. It will display as MM:SS when the remaining time is <60 minutes.

The timer LED's will illuminate as follows:

a) All expired timers will flash quickly (may be more than one)
b) The timer with the shortest amount of time remaining will flash slowly.
c) All other active timers will be illuminated (may be more than one).

6. Acknowledge expired timers.

The LED will quickly flash when time expires. Press expired Shelf Timer Key to acknowledge expired timer.

To Cancel a Timer:

Press and hold desired Shelf Timer Key for two seconds.

Power Failure:

The Power Indicator Light by On/Off Power Key will blink to indicate a power failure. To stop the blinking, simply depress On/Off Key. The memory will not be impaired.

OPERATION

GENERAL HOLDING GUIDELINES

Chefs, cooks and other specialized food service personnel employ varied methods of cooking. Proper holding temperatures for a specific food product must be based on the moisture content of the product, product density, volume, and proper serving temperatures. Safe holding temperatures must also be correlated with palatability in determining the length of holding time for a specific product.

Halo Heat maintains the maximum amount of product moisture content without the addition of water, water vapor, or steam. Maintaining maximum natural product moisture preserves the natural flavor of the product and provides a more genuine taste. In addition to product moisture retention, the gentle properties of Halo Heat maintain a consistent temperature throughout the cabinet without the necessity of a heat distribution fan, thereby preventing further moisture loss due to evaporation or dehydration.

In an enclosed holding environment, too much moisture content is a condition which can be relieved. A product achieving extremely high temperatures in preparation must be allowed to decrease in temperature before being placed in a controlled holding atmosphere. If the product is not allowed to decrease in temperature, excessive condensation will form increasing the moisture content on the outside of the product. To preserve the safety and quality of freshly cooked foods however, a maximum of 1 to 2 minutes must be the only time period allowed for the initial heat to be released from the product.

Most Halo Heat holding equipment is provided with a thermostat control between 60° and 200°F (16° to 93°C). If the unit is equipped with vents, close the vents for moist holding and open the vents for crisp holding.

HOLDING TEMPERATURE RANGE		
MEAT	**FAHRENHEIT**	**CELSIUS**
BEEF ROAST — Rare	130°F	54°C
BEEF ROAST — Med/Well Done	155°F	68°C
BEEF BRISKET	160° — 175°F	71° — 79°C
CORN BEEF	160° — 175°F	71° — 79°C
PASTRAMI	160° — 175°F	71° — 79°C
PRIME RIB — Rare	130°F	54°C
STEAKS — Broiled/Fried	140° — 160°F	60° — 71°C
RIBS — Beef or Pork	160°F	71°C
VEAL	160° — 175°F	71° — 79°C
HAM	160° — 175°F	71° — 79°C
PORK	160° — 175°F	71° — 79°C
LAMB	160° — 175°F	71° — 79°C
POULTRY		
CHICKEN — Fried/Baked	160° — 175°F	71° — 79°C
DUCK	160° — 175°F	71° — 79°C
TURKEY	160° — 175°F	71° — 79°C
GENERAL	160° — 175°F	71° — 79°C
FISH/SEAFOOD		
FISH — Baked/Fried	160° — 175°F	71° — 79°C
LOBSTER	160° — 175°F	71° — 79°C
SHRIMP — Fried	160° — 175°F	71° — 79°C
BAKED GOODS		
BREADS/ROLLS	120° — 140°F	49° — 60°C
MISCELLANEOUS		
CASSEROLES	160° — 175°F	71° — 79°C
DOUGH — Proofing	80° — 100°F	27° — 38°C
EGGS —Fried	150° — 160°F	66° — 71°C
FROZEN ENTREES	160° — 175°F	71° — 79°C
HORS D'OEUVRES	160° — 180°F	71° — 82°C
PASTA	160° — 180°F	71° — 82°C
PIZZA	160° — 180°F	71° — 82°C
POTATOES	180°F	82°C
PLATED MEALS	140° — 165°F	60°— 74°C
SAUCES	140° — 200°F	60° — 93°C
SOUP	140° — 200°F	60° — 93°C
VEGETABLES	160° — 175°F	71° — 79°C
THE HOLDING TEMPERATURES LISTED ARE SUGGESTED GUIDELINES ONLY. ALL FOOD HOLDING SHOULD BE BASED ON INTERNAL PRODUCT TEMPERATURES. ALWAYS FOLLOW LOCAL HEALTH (HYGIENE) REGULATIONS FOR ALL INTERNAL TEMPERATURE REQUIREMENTS.		

CARE AND CLEANING

CLEANING AND PREVENTATIVE MAINTENANCE

PROTECTING STAINLESS STEEL SURFACES



It is important to guard against corrosion in the care of stainless steel surfaces. Harsh, corrosive, or inappropriate chemicals can completely destroy the protective surface layer of stainless steel. Abrasive pads, steel wool, or metal implements will abrade surfaces causing damage to this protective coating and will eventually result in areas of corrosion. Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion. In addition, many acidic foods spilled and left to remain on metal surfaces are contributing factors that will corrode surfaces.

Proper cleaning agents, materials, and methods are vital to maintaining the appearance and life of this appliance. Spilled foods should be removed and the area wiped as soon as possible but at the very least, a minimum of once a day. Always thoroughly rinse surfaces after using a cleaning agent and wipe standing water as quickly as possible after rinsing.

CLEANING AGENTS

Use non-abrasive cleaning products designed for use on stainless steel surfaces. Cleaning agents must be chloride-free compounds and must not contain quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel surfaces. Always use the proper cleaning agent at the manufacturer's recommended strength. Contact your local cleaning supplier for product recommendations.

CLEANING MATERIALS

The cleaning function can usually be accomplished with the proper cleaning agent and a soft, clean cloth. When more aggressive methods must be employed, use a non-abrasive scouring pad on difficult areas and make certain to scrub with the visible grain of surface metal to avoid surface scratches. Never use wire brushes, metal scouring pads, or scrapers to remove food residue.

CAUTION



TO PROTECT STAINLESS STEEL SURFACES, COMPLETELY AVOID THE USE OF ABRASIVE CLEANING COMPOUNDS, CHLORIDE BASED CLEANERS, OR CLEANERS CONTAINING QUATERNARY SALTS. NEVER USE HYDROCHLORIC ACID (MURIATIC ACID) ON STAINLESS STEEL. NEVER USE WIRE BRUSHES, METAL SCOURING PADS OR SCRAPERS.

CARE AND CLEANING



The cleanliness and appearance of this equipment will contribute considerably to operating efficiency and savory, appetizing food. Good equipment that is kept clean works better and lasts longer.

CLEAN THE HOLDING CABINET DAILY:

1. Disconnect unit from power source, and let cool.

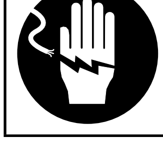
2. Remove all detachable items such as shelves, side racks, and drip pan. Clean these items separately with a good grease solvent or commercial detergent. Rinse well and dry.

3. Clean interior metal surfaces of the unit with a damp, clean cloth and any good commercial detergent or grease solvent at the recommended strength. Spray heavily soiled areas with a water soluble degreaser and let stand for 10 minutes, then remove soil with a plastic scouring pad. Rinse by wiping with a Sponge and clean warm water to remove all residue. Remove excess water with sponge and wipe dry with a clean cloth or air dry. Replace side racks and shelves.



NOTE: Avoid the use of abrasive cleaning, compounds, chloride based cleaners, or cleaners containing quaternary salts. Never use hydrochloric acid (muriatic acid) on stainless steel.

⚠ DANGER



DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

4. Clean control panel, door vents, door handles, and door gaskets thoroughly since these areas harbor food debris. Rinse by wiping with sponge and clean warm water. Wipe dry with a clean cloth.

5. Interior can be wiped with a sanitizing solution after cleaning and rinsing. This solution must be approved for use on stainless steel food contact surfaces.

6. To help maintain the protective film coating on polished stainless steel, clean the exterior of the unit with a cleaner recommended for stainless steel surfaces. Spray the cleaning agent on a clean cloth and wipe with the grain of the stainless steel.

Always follow appropriate state or local health (hygiene) regulations regarding all applicable cleaning and sanitation requirements for food service equipment.

DANGER



AT NO TIME SHOULD THE INTERIOR OR EXTERIOR BE STEAM CLEANED, HOSED DOWN, OR FLOODED WITH WATER OR LIQUID SOLUTION OF ANY KIND. DO NOT USE WATER JET TO CLEAN.



SEVERE DAMAGE OR ELECTRICAL HAZARD COULD RESULT.

WARRANTY BECOMES VOID IF APPLIANCE IS FLOODED

SANITATION

Food flavor and aroma are usually so closely related that it is difficult, if not impossible, to separate them. There is also an important, inseparable relationship between cleanliness and food flavor. Cleanliness, top operating efficiency, and appearance of equipment contribute considerably to savory, appetizing foods. Good equipment that is kept clean, works better and lasts longer.

Most food imparts its own particular aroma and many foods also absorb existing odors. Unfortunately, during this absorption there is not distinction between GOOD and BAD odors The majority of objectionable flavors and odors troubling food service operations are caused by bacteria growth. Sourness, rancidity, mustiness, stale or other OFF flavors are usually the result of germ activity.

The easiest way to insure full, natural food flavor is through comprehensive cleanliness. This means good control of both visible soil (dirt) and invisible soil (germs). A through approach to sanitation will provide essential cleanliness. It will assure an attractive appearance of equipment, along with maximum efficiency and utility. More importantly, a good sanitation program provides one of the key elements in the prevention of food-borne illnesses.

A controlled holding environment for prepared foods is just one of the important factors involved in the prevention of food-borne illnesses. Temperature monitoring and control during receiving, storage, preparation, and the service of foods are of equal importance.

The most accurate method of measuring safe temperatures of both hot and cold foods is by internal product temperature. A quality thermometer is an effective tool for this purpose, and should be routinely used on all products that require holding at a specific temperature.

A comprehensive sanitation program should focus on the training of staff in basic sanitation procedures. This includes personal hygiene, proper handling of raw foods, cooking to a safe internal product temperature, nd the routine monitoring of internal temperatures from receiving through service.

Most food-borne illnesses can be prevented through proper temperature control and a comprehensive program of sanitation. Both these factors are important to build quality service as the foundation of customer satisfaction. Safe food handling practices to prevent food-borne illness is of critical importance to the health and safety of your customers.

HACCP, an acronym for Hazard Analysis (at) Critical Control Points, is a quality control program of operating procedures to assure food integrity, quality, and safety. Taking steps necessary to augment food safety practices is both cost effective and relatively simple. While HACCP guidelines go far beyond the scope of this manual, additional information is available by contacting:

CENTER FOR FOOD SAFETY AND APPLIED NUTRITION FOOD AND DRUG ADMINISTRATION 1-888-SAFEFOOD

INTERNAL FOOD PRODUCT TEMPERATURES		
HOT FOODS		
DANGER ZONE	40° TO 140°F	(4° TO 60°C)
CRITICAL ZONE	70° TO 120°F	(21° TO 49°C)
SAFE ZONE	140° TO 165°F	(60° TO 74°C)
COLD FOODS		
DANGER ZONE	ABOVE 40°F	(ABOVE 4°C)
SAFE ZONE	36° TO 40°F	(2° TO 4°C)
FROZEN FOODS		
DANGER ZONE	ABOVE 32°F	(ABOVE 0°C)
CRITICAL ZONE	0° TO 32°F	(-18° TO 0°C)
SAFE ZONE	0°F or below	(-18°C or below)

SERVICE

THERMOSTAT ACCURACY

The electronic thermostat is a precise instrument and is designed to offer trouble free service. If you suspect the temperature inside the holding compartment does not match the temperature indicated on the digital display, follow the instructions listed below.

1. Check to make certain the unit voltage matches the power source. A power source less than that required to operate the unit will result in inaccurate temperatures.
2. Verify the temperature inside the holding compartment with a quality thermal indicator.
   a. With the exception of the wire shelves, completely empty the holding compartment.
   b. Make certain the holding cabinet sensor, located inside the holding compartment at the left side of the unit, is completely clean.
   c. Suspend the thermal indicator in the center of the holding compartment.
   d. Allow the temperature set on the electronic thermostat to stabilize for a minimum of one hour before comparing the digital display with the reading on the thermal indicator.

      DO NOT OPEN THE CABINET DOOR(S) DURING THE TEMPERATURE STABILIZATION PERIOD.

If the reading on the thermal indicator does not match the digital display, there may be a problem with the air sensor. See troubleshooting guide in this manual; or call the factory service department for advice.

⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

24•7
Your Service Hotline
1-800-558-8744

TROUBLESHOOTING

This section is provided for the assistance of qualified technicians only and is not intended for use by untrained or unauthorized service personnel. If your Alto-Shaam® unit is not operating properly, check the following before calling your Authorized Alto-Shaam Service Agent:

☛ Check main power circuit breaker to the unit and verify that the circuit breaker on the back of the unit is turned on, if applicable.
Do not attempt to repair or service the unit beyond this point. **Contact Alto-Shaam for the nearest authorized service agent. Repairs made by any other service agents without prior authorization by Alto-Shaam® will void the warranty on the unit.**

⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.

SERVICE

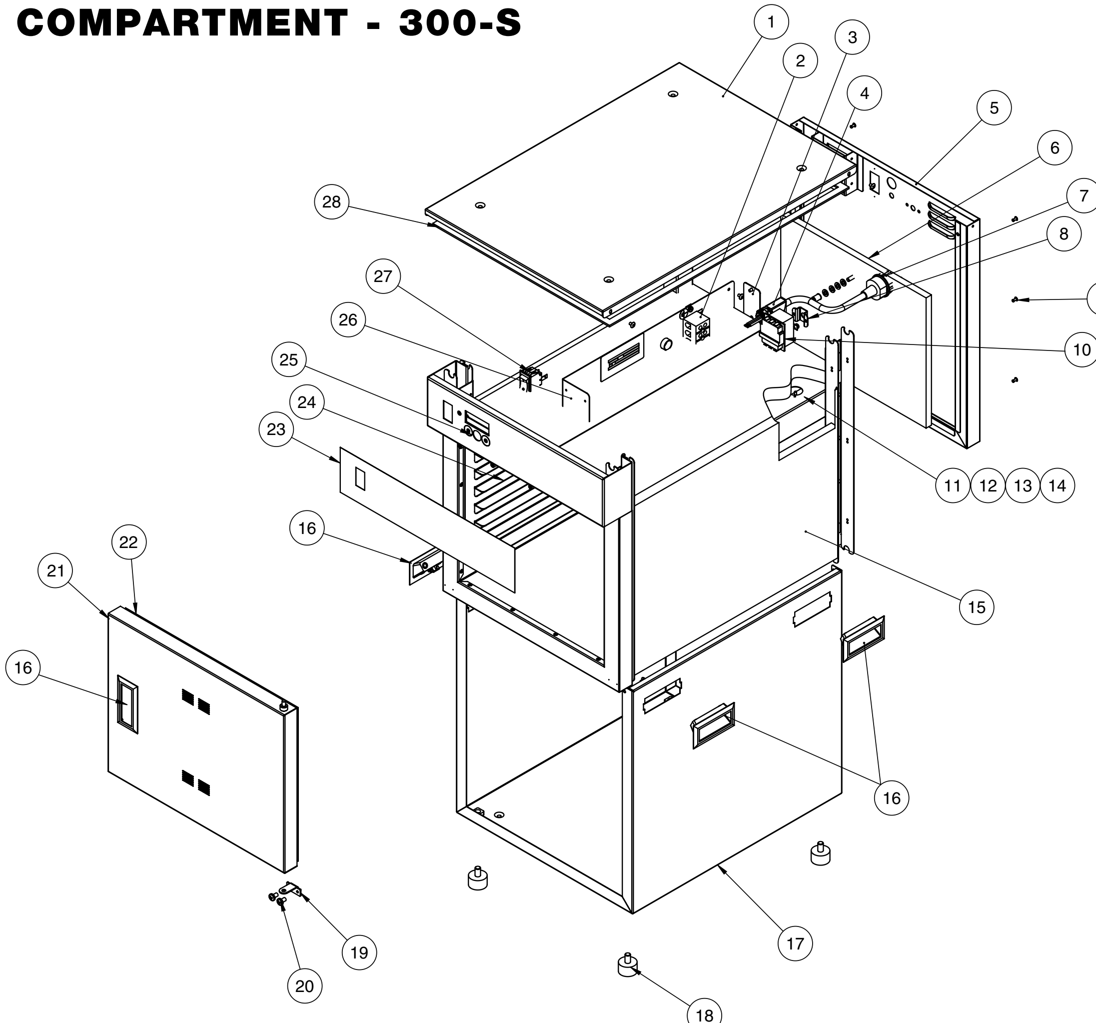
TROUBLESHOOTING

Code	Description	Possible Cause
E-10	**Cavity air sensor shorted**	Cavity air sensor reading < 5°F. Verify sensor integrity. See sensor test instructions below.
E-11	**Cavity air sensor open**	Cavity air sensor reading > 517°F. Verify sensor integrity. See sensor test instructions below.
E-20	**Product probe is shorted** *Oven will cook in time only*	Product probe reading < 5°F. Verify sensor integrity. See sensor test instructions below.
E-21	**Product probe is open** *Oven will cook in time only*	Product Probe reading > 517°F. Verify sensor integrity. See sensor test instructions below.
E-30	**Under temperature**	Unit has not reached (set-point - 25°F) for more than 90 minutes.
E-31	**Over temperature**	Unit has been higher than 25°F above the maximum cavity set-point for more than 2 minutes. **Note:** Holding Cabinets with this error code are more than 145°F higher than the maximum set-point.
E-50	**Temp. measurement error**	Contact factory.
E-51	**Temp. measurement error**	Contact factory.
E-60	**Real time clock error**	Data set to factory default. Ensure that date and time are correct if applicable.
E-61	**Real time clock error**	Contact factory.
E-64	**Clock is not oscillating**	Contact factory.
E-70	**Configuration connector error (DIP switch)**	Refer to wiring diagram for the particular model and ensure dip switches on the control match the settings called out on the WD. If the dip switch settings are correct according to the print replace the control.
E-78	**Voltage low**	Voltage below 90 VAC on a 125 VAC unit, or below 190 VAC on a 208-240 VAC unit. Correct voltage.
E-79	**Voltage high**	Voltage over 135 VAC on a 125 VAC unit, or over 250 VAC on a 208-240 VAC unit. Correct voltage.
E-80	**EEPROM Error**	Ensure that all temperatures and times are properly set. Contact factory if problem persists.
E-81	**EEPROM Error**	Contact factory.
E-82	**EEPROM Error**	Contact factory.
E-83	**EEPROM Error**	Contact factory.
E-85	**EEPROM Error**	All timers, if previously on, are now off. Possible bad EEPROM.
E-86	**EEPROM Error**	Stored HACCP memory corrupted. HACCP Address reset to 1. Possible bad EEPROM. Contact factory if problem persists.
E-87	**EEPROM Error**	Stored offsets corrupted. Offsets reset to 0. Control may need a recalibration. Possible bad EEPROM. Contact factory if problem persists.
E-88	**EEPROM Error**	All timer set-points are reset to 1 minute. Timers, if previously on, are now off. Possible bad EEPROM.
E-90	**Button stuck**	A button has been held down for >60 seconds. Adjust control. Error will reset when the problem has been resolved.
E-dS	**Datakey error**	Datakey digital signature incompatible. Cycle power, and install compatible Datakey if error persists.
E-dT	**Datakey error**	Datakey incompatible with control. Install compatible Datakey.
E-dU	**Datakey unplugged**	Install Datakey and cycle power to control to clear error.
dLto	**Datalogger has timed out**	Cycle power. Contact factory if error persists.
dLSD	**Micro SD card not plugged in**	Plug in SD card and cycle power. Contact factory if error persists.
Note: *If in doubt, always cycle the power to the control and contact factory if the problem persists.*		

To test probe and air sensor:

Test probe and air sensor by placing sensor in ice water bath and using an ohmmeter set on the ohm scale. The reading should be 100 ohms resistance. If it is more than 2 ohms higher or lower, sensor needs to be replaced.

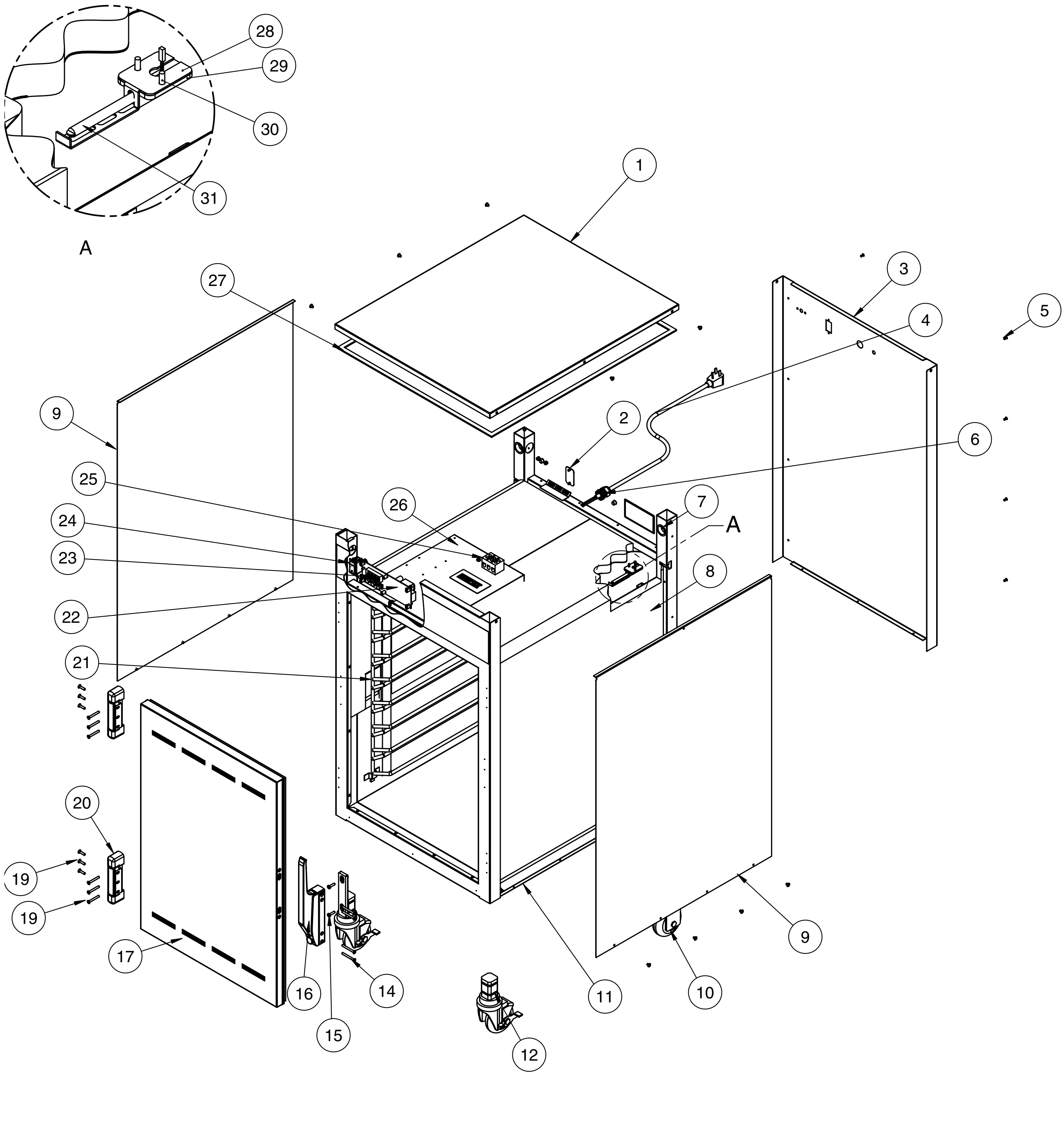
SINGLE COMPARTMENT - 300-S



Part numbers and drawings are subject to change without notice.

ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	BONNET TOP COVER	1012831	1	21	DOOR ASSEMBLY	5014458	1
2	T-BLOCK	BK-3019	1	22	DOOR GASKET	GS-35092	1
3	BREAKER SWITCH CUTOUT COVER	11133	1	23	PANEL, OVERLAY	PE-35188	1
4	BUSHING, STRAIGHT, STRAIN RELIEF	BU-34898	1	24	SIDE RACKS	1012872	2
5	REAR TRIM	5014525	1	25	CONTROL	CC-34970	1
6	INSULATION	IN-2003	1	26	ELECTRIC CHASSIS SPOT	5014530	1
7	CORDSET, 230V	CD-3922	1	27	SWITCH, ROCKER, 125-277V, 20A	SW-34769	1
	CORDSET, 120V	CD-3232	1	28	GASKETS, ADHESIVE,.125X.375	GS-23622	1
8	HI-LIMIT PROTECTION COVER	1003936	1	29*	PROBE COVER	1008807	1
9	RIVET, BLIND, #44, S/S	RI-2100	16	30*	BUSHING, 3/4" SNAP	BU-3008	1
10	HI-LIMIT THERMOSTAT	TT-33476	1	31*	NUT, 6-32 HEX, S/S	NU-2361	4
11	SENSOR MOUNTING BRACKET	1008272	1	32*	SCREW, 10-32 X 1/4 PAN HD GROUND	SC-2190	1
12	BLOCK, SENSOR	BK-29606	1	33*	SCREWS, M4-0.7 X 6MM PHIL	SC-22271	2
13	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2	34*	SCREW, HHCS M6 X 20, W/NO MKGS	SC-22924	1
14	SENSOR, OVEN TEMPERATURE	PR-34494	1	35*	SCREW, 6-32 X 1-1/4" ROUND HD	SC-2365	2
15	FOIL PAD HEATER, 230V	EL-29740	1	36*	SCREW, M6 X 1.0 X 10 PAN	SC-27078	2
	FOIL PAD HEATER, 120V	EL-35173	1	37*	SHELVES	SH-2107	2
16	HANDLE, PULL, RECESSED	HD-28789	5	38*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	6
17	OUTER CASING SPOT	5014538	1	39*	WASHER, FLAT	WS-22297	2
18	FEET, 3-1/2" (89MM) RIGID	FE-29203	4	40*	WASHER, SPLIT LOCK	WS-22302	2
19	HINGE PLATE, BOTTOM	1012999	1	41*	WASHER, 6-32, FLAT, NYL	WS-23148	4
20	SCREW, 8-32 X 1/4" TRH PHH	SC-2459	12	42*	WASHER, STAR LOCK	WS-2467	1

SINGLE COMPARTMENT - 500-S, 750-S, 1000-S
(1000-S Shown)



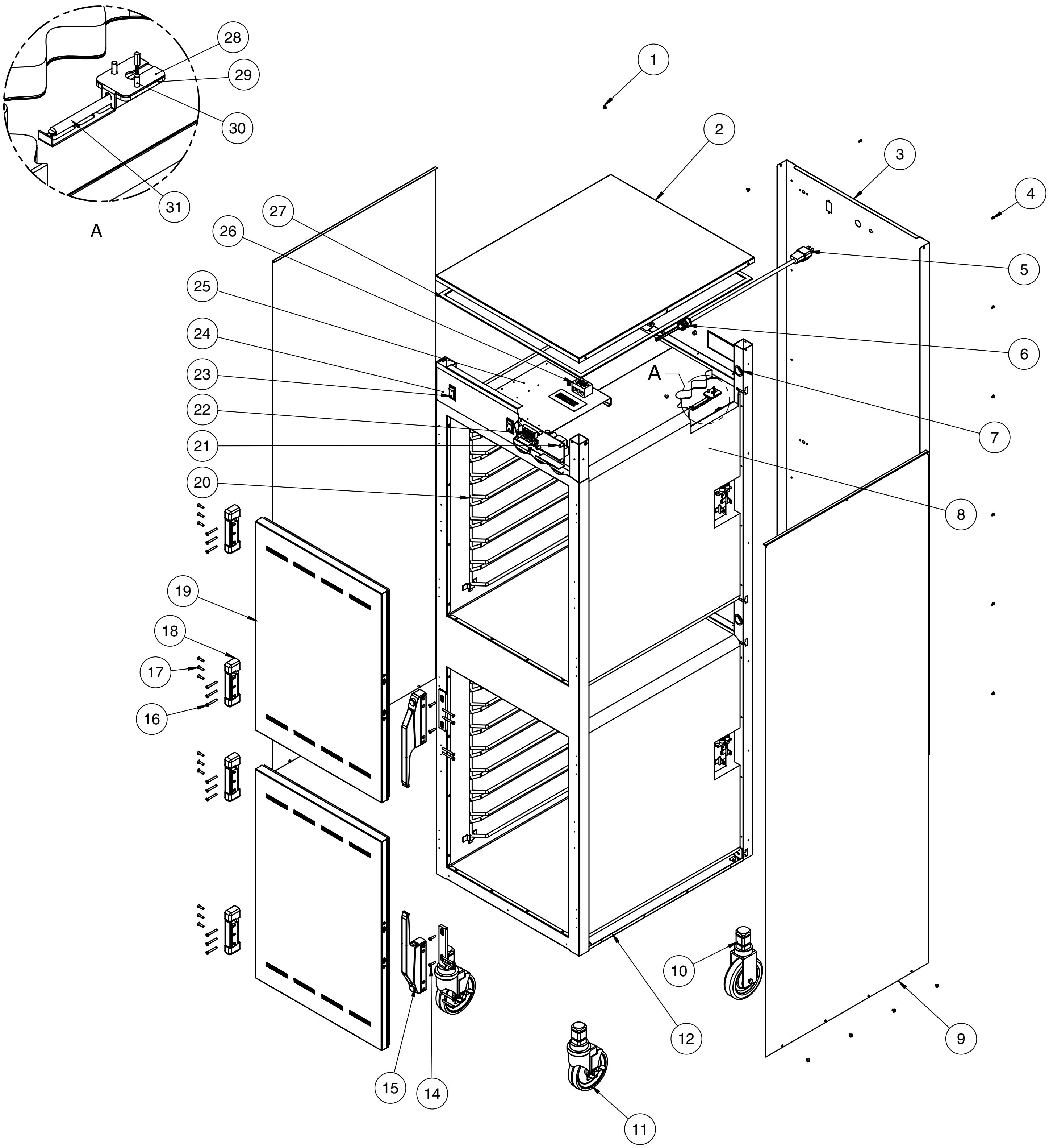
Part numbers and drawings are subject to change without notice.

SINGLE COMPARTMENT - 500-S, 750-S, 1000-S, 1200-S

	MODEL >	500-S		750-S		1000-S		1200-S	
ITEM	**DESCRIPTION**	**PART NO.**	**QTY**	**PART NO.**	**QTY**	**PART NO.**	**QTY**	**PART NO.**	**QTY**
1	BONNET TOP COVER	1011946	1	1011872	1	1011534	1	1011653	1
2	BREAKER SWITCH CUTOUT COVER	1011697	1	1011697	1	1011697	1	1011697	1
3	REAR TRIM	1011944	1	1011873	1	1011618	1	1011752	1
4	CORDSET, 120V	CD-3232	1	CD-3232	1	CD-3232	1	CD-3232	1
	CORDSET, 208-240V	CD-3551	1	CD-3551	11	CD-3551	1	CD-3551	1
	CORDSET, 230V	CD-3922	1	CD-3922	1	CD-3922	1	CD-3922	1
5	RIVET, BLIND, #44, S/S	RI-2100	24	RI-2100	24	RI-2100	24	RI-2100	24
6	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	BU-3964	1	BU-3964	1	BU-3964	1
7	BUSHING, 1-1/8" SNAP	BU-3378	4	BU-3378	4	BU-3378	4	BU-3378	4
8	INSULATION	IN-22364	1	IN-22364	1	IN-22364	1	IN-22364	1
9	SIDE PANEL	5015081	2	5015083	2	5015088	2	5015092	2
10	CASTER, 3-1/2" (89mm) RIGID	CS-24674	2	CS-24674	2	CS-24674	2	——	——
	CASTER, 5" (127mm) RIGID	——	——	——	——	——	——	CS-24874	2
11	CASTER, 3-1/2" (89mm) SWIVEL WITH BRAKE	CS-24675	2	CS-24675	2	CS-24675	2	——	——
	CASTER, 5" (127mm) SWIVEL WITH BRAKE	——	——	——	——	——	——	CS-24875	2
12	BOTTOM PANEL	1010774	1	1010394	1	1009941	1	1011650	1
13*	NOT SHOWN	——	——	——	——	——	——	——	——
14	SCREW, 10-32X1-3/4, NF, PHIL, FLAT M/S,18-8 S/S	SC-29387	4	SC-29387	4	SC-29387	4	SC-29387	4
15	SCREW, 10-32X3/4 PHILLIPS PAN HD	SC-2071	2	SC-2071	2	SC-2071	2	SC-2071	2
16	HANDLE, OFFSET MAG LATCH	HD-27080	1	HD-27080	1	HD-27080	1	HD-27080	1
17	DOOR ASSEMBLY	5013132	1	5012938	1	5012801	1	5012663	1
18	SCREW, 10-32X1-1/2, NF, PHIL, FLAT M/S,18-8 S/S	SC-2073	6	SC-2073	6	SC-2073	6	SC-2073	6
19	SCREW, 10-32X3/4, NF PHIL, FLAT M/S, 18-8 S/S	SC-2072	6	SC-2072	6	SC-2072	6	SC-2072	6
20	HINGE, 1-3/8" OFFSET, PAIR, CHROME	HG-22338	2	HG-22338	2	HG-22338	1	HG-22338	1
21	SIDE RACK	SR-28402	2	SR-28404	2	SR-2120	2	——	——
	*PAN SLIDES	——	——	——	——	——	——	SR-24447	8
	*PAN SLIDE RAIL	——	——	——	——	——	——	1011741	4
22	FRONT TRIM, CONTROL	5013104	1	5012940	1	5012285	1	5012731	1
23	CONTROL	CC-34970	1	CC-34970	1	CC-34970	1	CC-34970	1
24	SWITCH, ROCKER, 125-277V, 20A	SW-34769	1	SW-34769	1	SW-34769	1	SW-34769	1
25	T-BLOCK	BK-3019	1	BK-3019	1	BK-3019	1	BK-3019	1
26	ELECTRIC CHASSIS	5012122	1	5012122	1	5012122	1	5012122	1
27	GASKETS, ADHESIVE,.125X.375 [lin ft]	GS-23622	1	GS-23622	1	GS-23622	1	GS-23622	1
28	BRACKET, SENSOR MTG.	1008272	1	1008272	1	1008272	1	1008272	1
29	BLOCK, SENSOR	BK-29606	1	BK-29606	1	BK-29606	1	BK-29606	1
30	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2	SC-2254	2	SC-2254	2	SC-2254	2
31	SENSOR, OVEN TEMPERATURE	PR-34494	1	PR-34494	1	PR-34494	1	PR-34494	1
32*	NON-PRODUCT PROBE SEAL	1006871	1	1006871	1	1006871	1	1006871	1
33*	INNER BACK PANEL	1011938	1	1011861	1	1011529	1	1011654	1
34*	NUT, M4-0.7 HEX 18-8	NU-22286	2	NU-22286	2	NU-22286	2	NU-22286	2
35*	NUT, HEX #8-32	NU-2296	2	NU-2296	2	NU-2296	2	NU-2296	2
36*	NUT, 6-32 HEX, S/S	NU-2361	4	NU-2361	4	NU-2361	4	NU-2361	4
37*	PANEL, OVERLAY	PE-29399	1	PE-29398	1	PE-29396	1	PE-29397	1
38*	PLUG, 3/8" HOLE	PG-25574	2	PG-25574	2	PG-25574	2	PG-25574	2
39*	SCREW, 10-32 X 1/4 PAN HD GROUND	——	——	SC-2190	1	SC-2190	1	SC-2190	1
40*	SCREWS, M4-0.7 X 6MM PHIL	SC-22271	2	SC-22271	2	SC-22271	2	SC-22271	2
41*	SCREW, 1/4-20 X 1/2, NC SLOT RND	SC-2332	4	SC-2332	4	SC-2332	4	SC-2332	4
42*	SCREW, 6-32 X 1-1/4" ROUND HD	——	——	SC-2365	2	SC-2365	2	SC-2365	2
43*	SCREWS, 8-32 X 1/2" PHIL S/S	SC-2425	6	SC-2425	6	SC-2425	6	SC-2425	6
44*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	6	SP-29392	6	SP-29392	6	SP-29392	6
45*	SHELF, CHROME PLATED	SH-2107	2	SH-2105	2	——	——	——	——
46*	TAPE, 1" WIDE X 25 MIL VHB	TA-24637	9	TA-24637	9	TA-24637	9	TA-24637	18
47*	WASHER, 6-32, FLAT, NYL	WS-23148	4	WS-23148	4	WS-23148	4	WS-23148	4
48*	WASHER, STAR LOCK	WS-2467	1	WS-2467	1	WS-2467	1	WS-2467	1

*NOT SHOWN

DOUBLE COMPARTMENT - 1000-UP, 1200-UP
(1000-UP SHOWN)



Part numbers and drawings are subject to change without notice.

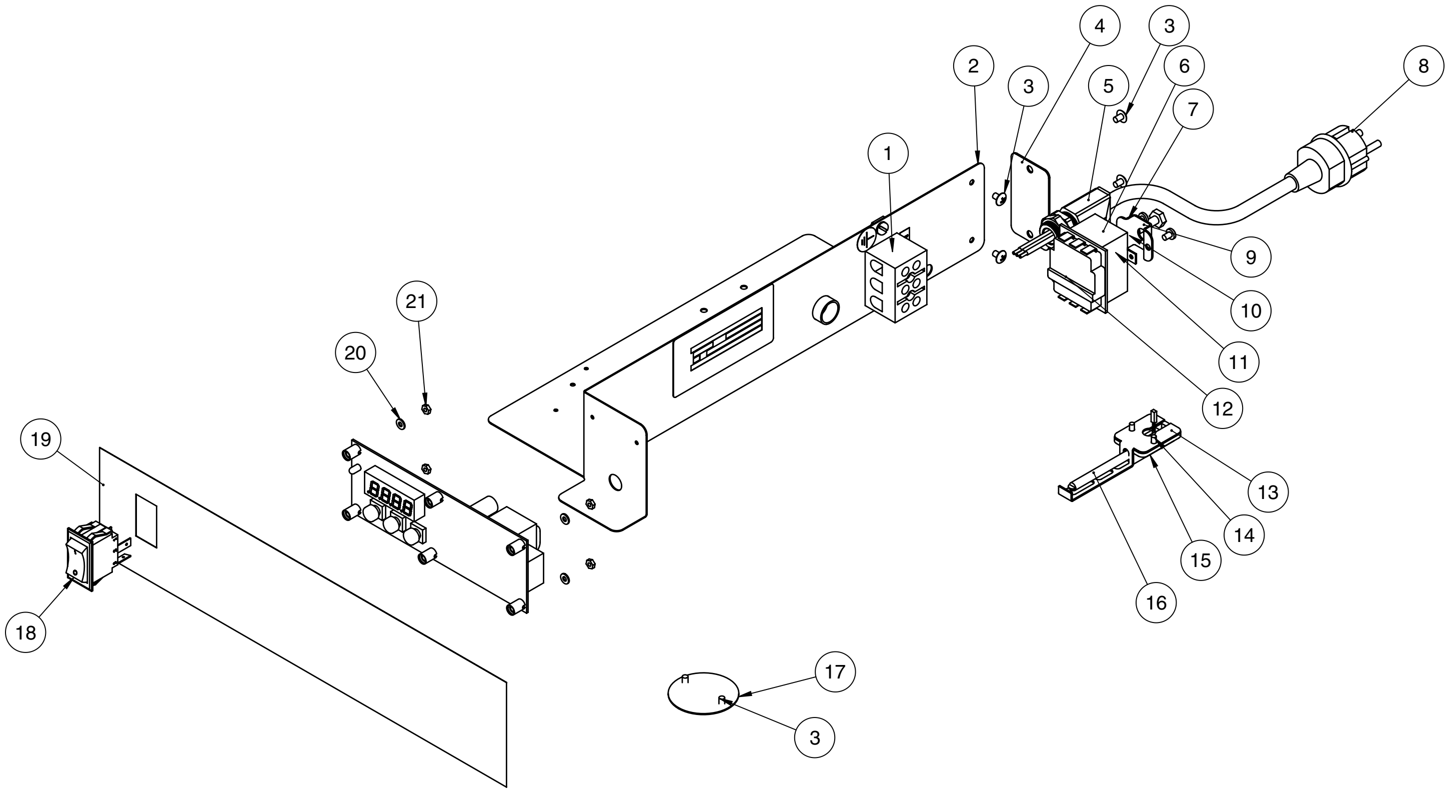
DOUBLE COMPARTMENT - 1000-UP, 1200-UP

	MODEL >	1000-UP		1200-UP	
ITEM	DESCRIPTION	PART NO.	QTY	PART NO.	QTY
1	SCREW, 8-32 X 1/4" PHIL	SC-2459	30	SC-2459	32
2	BONNET TOP COVER	1011534	1	1011653	1
3	REAR TRIM	1011532	1	1011652	1
4	RIVET, BLIND, #44, S/S	RI-2100	44	RI-2100	44
5	CORDSET, 120V	CD-33824	1	CD-33824	1
	CORDSET, 208-240V	CD-3551	1	CD-3551	1
	CORDSET, 230V	CD-3922	1	CD-3922	1
6	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	BU-3964	1
7	BUSHING, 1 1/8" SNAP	BU-3378	8	BU-3378	8
8	INSULATION	IN-22364	1	IN-22364	1
9	SIDE PANEL	5015105	2	5015105	2
10	CASTER, 5" (127mm) RIGID	CS-24874	2	CS-24874	2
11	CASTER, 5" (127mm) SWIVEL WITH BRAKE	CS-24875	2	CS-24875	2
12	BOTTOM PANEL	1009941	1	1011650	1
13*	NOT SHOWN	——	——	——	——
14	SCREW, 10-32 X 3/4 PHILLIPS PAN HD	SC-2071	4	SC-2071	4
15	HANDLE, OFFSET MAG LATCH	HD-27080	2	HD-27080	2
16	SCREW, 10-32 X 1-1/2, NF, PHIL, FLAT M/S,18-8 S/S	SC-2073	12	SC-2073	12
17	SCREW, 10-32 X 3/4, NF PHIL, FLAT M/S, #18-8 S/S	SC-2072	12	SC-2072	12
18	HINGE, 1-3/8 OFFSET, PAIR, CHROME	HG-22338	2	HG-22338	2
19	DOOR ASSEMBLY	5012801	2	5012663	2
20	SIDE RACK	SR-2120	4	——	——
21	FRONT TRIM, CONTROL	5012113	1	5012345	1
22	CONTROL	CC-34970	2	CC-34970	2
23	SWITCH, ROCKER, 125-277V, 20A	SW-34769	2	SW-34769	2
24	PANEL, OVERLAY	PE-29394	1	PE-29395	1
25	ELECTRIC CHASSIS	5012122	1	5012122	1
26	T-BLOCK	BK-3019	1	BK-3019	1
27	GASKETS, ADHESIVE,.125X.375 [lin ft]	GS-23622	1	GS-23622	1
28	BRACKET, SENSOR MTG.	1008272	2	1008272	2
29	BLOCK, SENSOR	BK-29606	2	BK-29606	2
30	SCREW, 6-32 X 1/2, NC PHIL, FLAT	SC-2254	2	SC-2254	2
31	SENSOR, OVEN TEMPERATURE	PR-34494	2	PR-34494	2
32*	NON-PRODUCT PROBE SEAL	1006871	2	1006871	2
33*	INNER BACK PANEL	1011529	2	1011654	2
34*	BREAKER SWITCH CUTOUT COVER	1011697	1	1011397	1
35*	NUT, M4-0.7 HEX 18-8	NU-22286	4	NU-22286	4
36*	NUT, HEX #8-32	NU-2296	2	NU-2296	2
37*	NUT, 6-32 HEX, S/S	NU-2361	8	NU-2361	8
38*	PLUG, 3/8" HOLE	PG-25574	3	PG-25574	3
39*	SCREW, 10-32 X 1/4 PAN HD GROUND	SC-2190	1	SC-2190	1
40*	SCREWS, M4-0.7X6MM PHIL	SC-22271	4	SC-22271	4
41*	SCREW, 1/4-20 X 1/2, NC SLOT RND	SC-2332	4	SC-2332	4
42*	SCREW, 6-32 X 1 1/4" ROUND HD	SC-2365	2	SC-2365	2
43*	SCREW, 10-32 X 1-3/4, NF, PHIL, FLAT M/S,18-8 S/S	SC-29387	8	SC-29387	8
44*	SPACER, SNAP-IN, 7/16", CONTROL	SP-29392	12	SP-29392	12
	*PAN SLIDE	——	——	SR-24447	16
	*PAN SLIDE RAIL	——	——	1011741	8
45*	TAPE, 1" WIDE X 25 MIL VHB	TA-24637	2	——	——
46*	WASHER, 6-32, FLAT, NYL	WS-23148	8	WS-23148	8
47*	WASHER, STAR LOCK	WS-2467	1	WS-2467	1

*NOT SHOWN

SERVICE

ELECTRONIC COMPONENTS - 300-S



Part numbers and drawings are subject to change without notice.

ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	T-BLOCK	BK-3019	1	12	NUT, THREADED INSERT, M6	NU-22770	1
2	ELECTRIC CHASSIS ASSEMBLY	5015058	1	13	BRACKET, SENSOR MTG.	1008272	1
3	SCREW, 8-32 X 1/4" PHIL	SC-2459	4	14	SCREW, 6-32 X 3/8" RND PHH	SC-2254	2
4	SWITCH COVER	11133	1	15	SENSOR BLOCK	BK-29606	1
5	BUSHING, STRAIN RELIEF, 90°, BLK	BU-34898	1	16	PROBE	PR-34494	1
6	HI-LIMIT THERMOSTAT	TT-33476	1	17	PROBE COVER	1008807	1
7	HI-LIMIT PROTECTION COVER	1003936	1	18	SWITCH, ROCKER,125-277V, 20A	SW-34769	1
8	CORDSET, 120V	CD-3232	1	19	PANEL, OVERLAY, 300-S SIMPLE	PE-35188	1
	CORDSET, 230V	CD-3922	1	20	WASHER, 6-32, FLAT, NYLON	WS-23148	4
9	SCREW, HHCS, M6 X 20, NO MKGS	SC-22924	1	21	NUT, 6-32 HEX, S/S	NU-2361	4
10	WASHER, FLAT	WS-22297	2	22*	SCREWS, M4-0.7X6MM PHIL	SC-22271	2
11	WASHER, SPLIT LOCK	WS-22302	2				

*NOT SHOWN

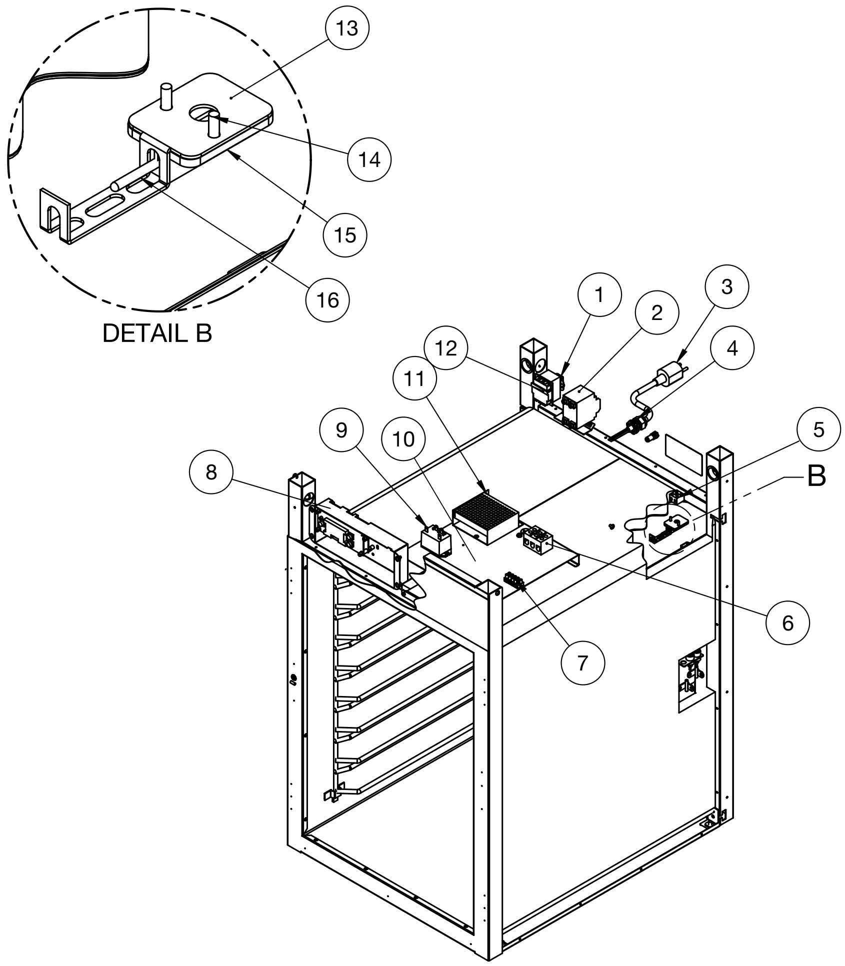
⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

⚠ DANGER

LOCK-OUT OR POST BREAKER PANEL UNTIL SERVICE WORK HAS BEEN COMPLETED.

DELUXE CONTROL ELECTRONIC COMPONENTS



Part numbers and drawings are subject to change without notice.

ITEM	DESCRIPTION	PART NO.	QTY	ITEM	DESCRIPTION	PART NO.	QTY
1	HI-LIMIT PROTECTION COVER	1003936	1	8	CONTROL WITHOUT TIMERS	5012946	1
2	SWITCH, CIRCUIT BREAKER	SW-34769	1	9	RELAY	RL-33558	1
3	CORDSET, 120V	CD-3232	1	10	ELECTRIC CHASSIS	5012122	1
	CORDSET, 208-240V	CD-3551	1	11	POWER SUPPLY BOARD	BA-33554	1
	CORDSET, 230V	CD-3922	1	12	T-STAT, HI-LIMIT	TT-33476	1
4	BUSHING, STRAIGHT, STRAIN RELIEF	BU-3964	1	13	SENSOR GUARD	1493	1
5	TERMINAL BLOCK, SENSOR	BK-33546	1	14	SCREW, 6-32X1/2, NC PHIL, FLAT	SC-2254	2
6	T-BLOCK	BK-3019	1	15	BLOCK, MOUNTING SENSOR	BK-29605	1
7	TERMINAL STRIP	TM-33560	1	16	SENSOR	SN-33541	1

⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

⚠ DANGER

LOCK-OUT OR POST BREAKER PANEL UNTIL SERVICE WORK HAS BEEN COMPLETED.

SERVICE

CABLE HEATING SERVICE KITS

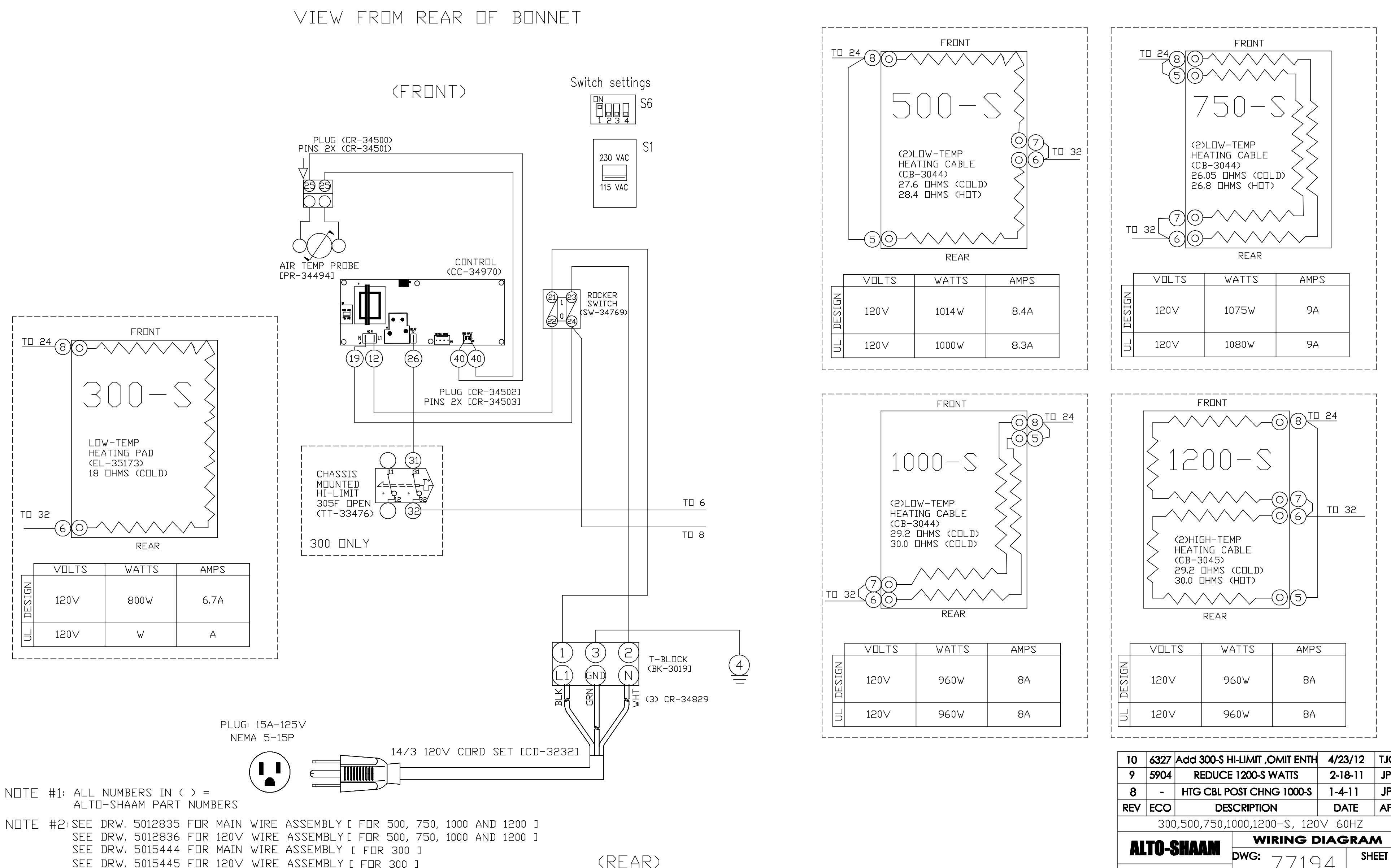
CABLE HEATING KIT > (ONE KIT REQUIRED PER CAVITY)		#4874 (500, 750, 1000)	#4881 (1200-UP - 4000W)	#4978 (1200-UP - ALL EXCEPT 4000W)
ITEM	**DESCRIPTION**	**QTY**	210 feet (6401cm)	**QTY**
CB-3045	CABLE HEATING ELEMENT	120 feet (3658cm)	12	90 feet (2591cm)
CR-3226	RING CONNECTOR	4	1 foot (30,5cm)	4
IN-3488	INSULATION CORNER	1 foot (30,5cm)	12	1 foot (30,5cm)
BU-3105	SHOULDER BUSHING	4	12	4
BU-3106	CUP BUSHING	4	12	4
ST-2439	STUD	4	24	4
NU-2215	HEX NUT	8	12	8
SL-3063	INSULATING SLEEVE	4	1 roll	4
TA-3540	ELECTRICAL TAPE	1 roll		1 roll

⚠ DANGER

DISCONNECT UNIT FROM POWER SOURCE BEFORE CLEANING OR SERVICING.

CAUTION

THIS SECTION IS PROVIDED FOR THE ASSISTANCE OF QUALIFIED SERVICE TECHNICIANS ONLY AND IS NOT INTENDED FOR USE BY UNTRAINED OR UNAUTHORIZED SERVICE PERSONNEL.



300-S

	VOLTS	WATTS	AMPS
DESIGN	120V	800W	6.7A
UL	120V	W	A

500-S

	VOLTS	WATTS	AMPS
DESIGN	120V	1014W	8.4A
UL	120V	1000W	8.3A

750-S

	VOLTS	WATTS	AMPS
DESIGN	120V	1075W	9A
UL	120V	1080W	9A

1000-S

	VOLTS	WATTS	AMPS
DESIGN	120V	960W	8A
UL	120V	960W	8A

1200-S

	VOLTS	WATTS	AMPS
DESIGN	120V	960W	8A
UL	120V	960W	8A

NOTE #1: ALL NUMBERS IN ( ) =
ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
SEE DRW. 5012836 FOR 120V WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
SEE DRW. 5015444 FOR MAIN WIRE ASSEMBLY [FOR 300]
SEE DRW. 5015445 FOR 120V WIRE ASSEMBLY [FOR 300]

REV	ECO	DESCRIPTION	DATE	APP
10	6327	Add 300-S HI-LIMIT ,OMIT ENTH	4/23/12	TJG
9	5904	REDUCE 1200-S WATTS	2-18-11	JPK
8	-	HTG CBL POST CHNG 1000-S	1-4-11	JPK

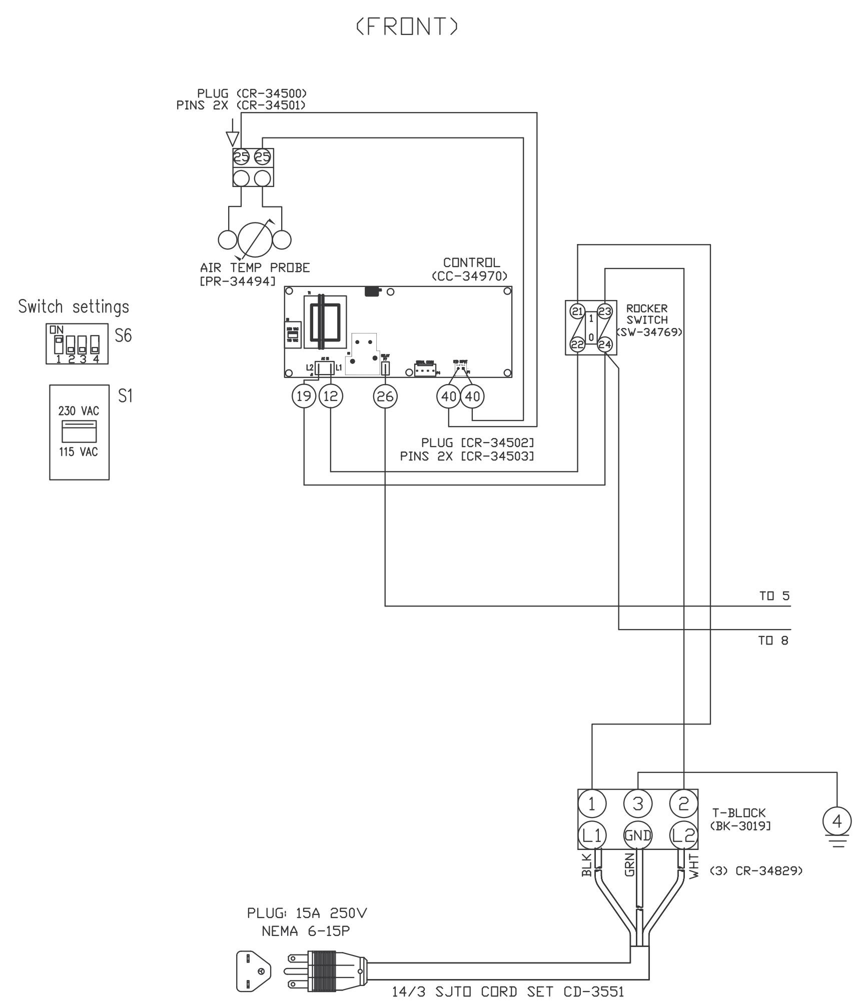
300,500,750,1000,1200-S, 120V 60HZ

ALTO-SHAAM — WIRING DIAGRAM

DWG: 77194 — SHEET 1_OF_1

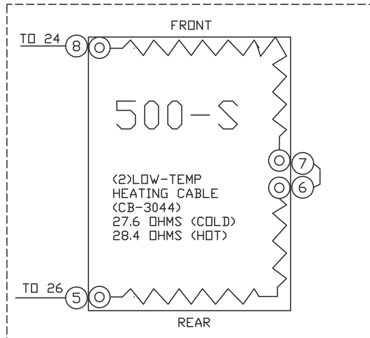
BY: JPK DATE: 1/16/08

VIEW FROM REAR OF BONNET

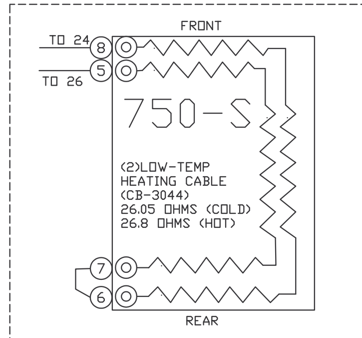


NOTE #1: ALL NUMBERS IN ( ) =
ALTO-SHAAM PART NUMBERS

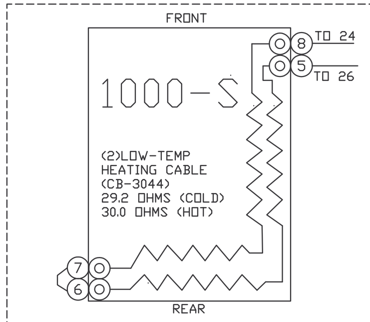
NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012837 FOR 208-240V WIRE ASSEMBLY
SEE DRW 5007692 FOR HIGH WATT JUMPERS



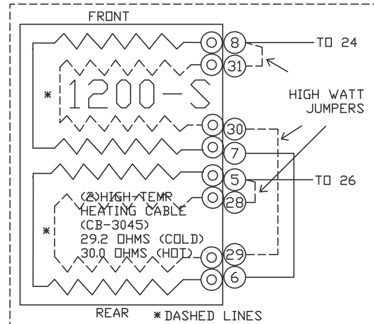
	VOLTS	WATTS	AMPS
DESIGN	208V	762W	3.7A
DESIGN	240V	1014W	4.2A
UL	208-240V	1000W	4.2A



	VOLTS	WATTS	AMPS
DESIGN	208V	807W	3.9A
DESIGN	240V	1075W	4.5A
UL	208-240V	1080W	4.5A



	VOLTS	WATTS	AMPS
DESIGN	208V	721W	3.5A
DESIGN	240V	960W	4A
UL	208-240V	960W	4A



* DASHED LINES
ARE HIGH WATT MODEL

	VOLTS	WATTS	AMPS
DESIGN	208V	721W	3.5A
DESIGN	240V	960W	4A
UL	208-240V	960W	4A

1200-S 2000W MODEL

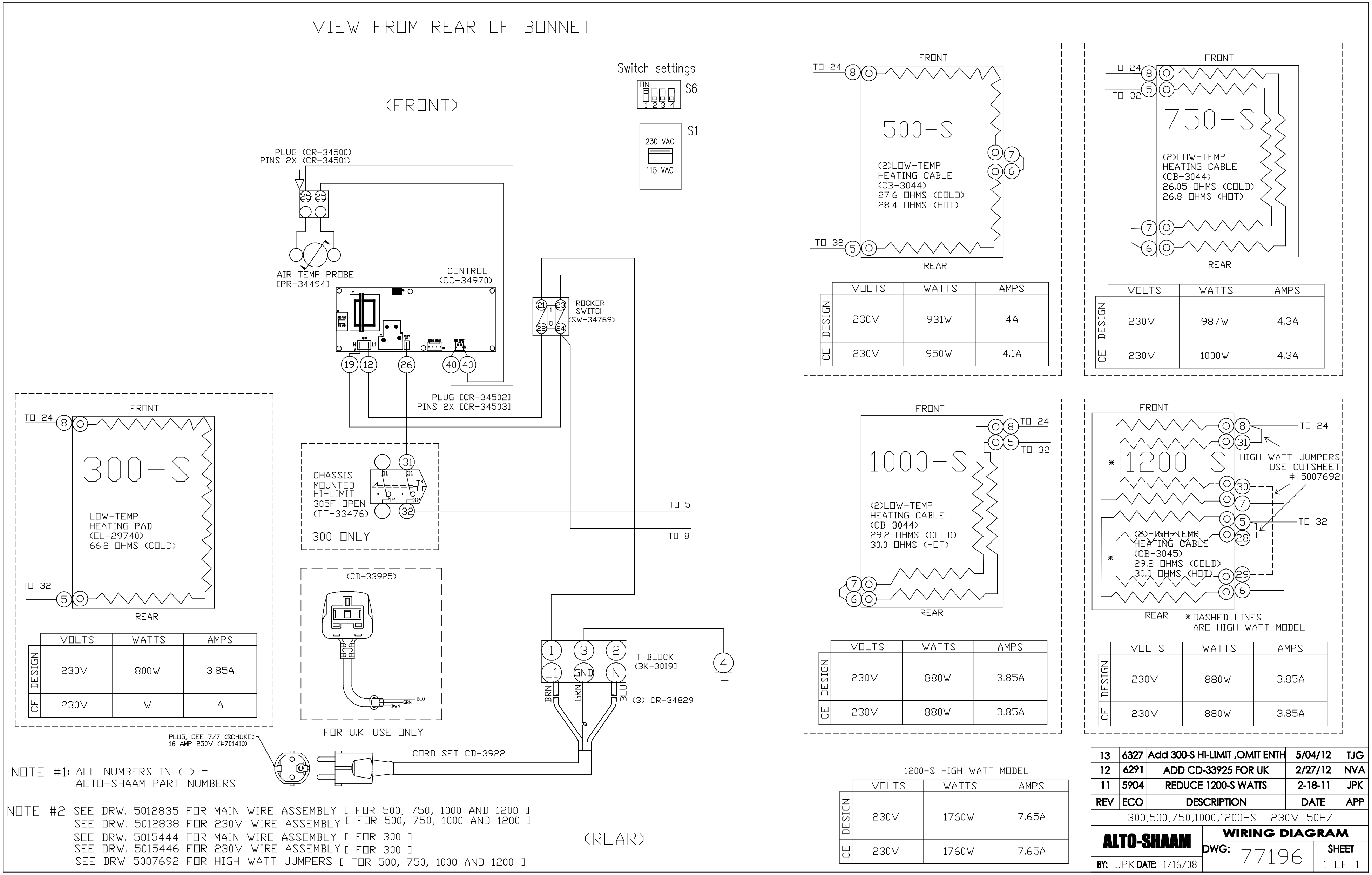
	VOLTS	WATTS	AMPS
DESIGN	208V	1442W	6.9A
DESIGN	240V	1920W	8A
UL	208-240V	1920W	8A

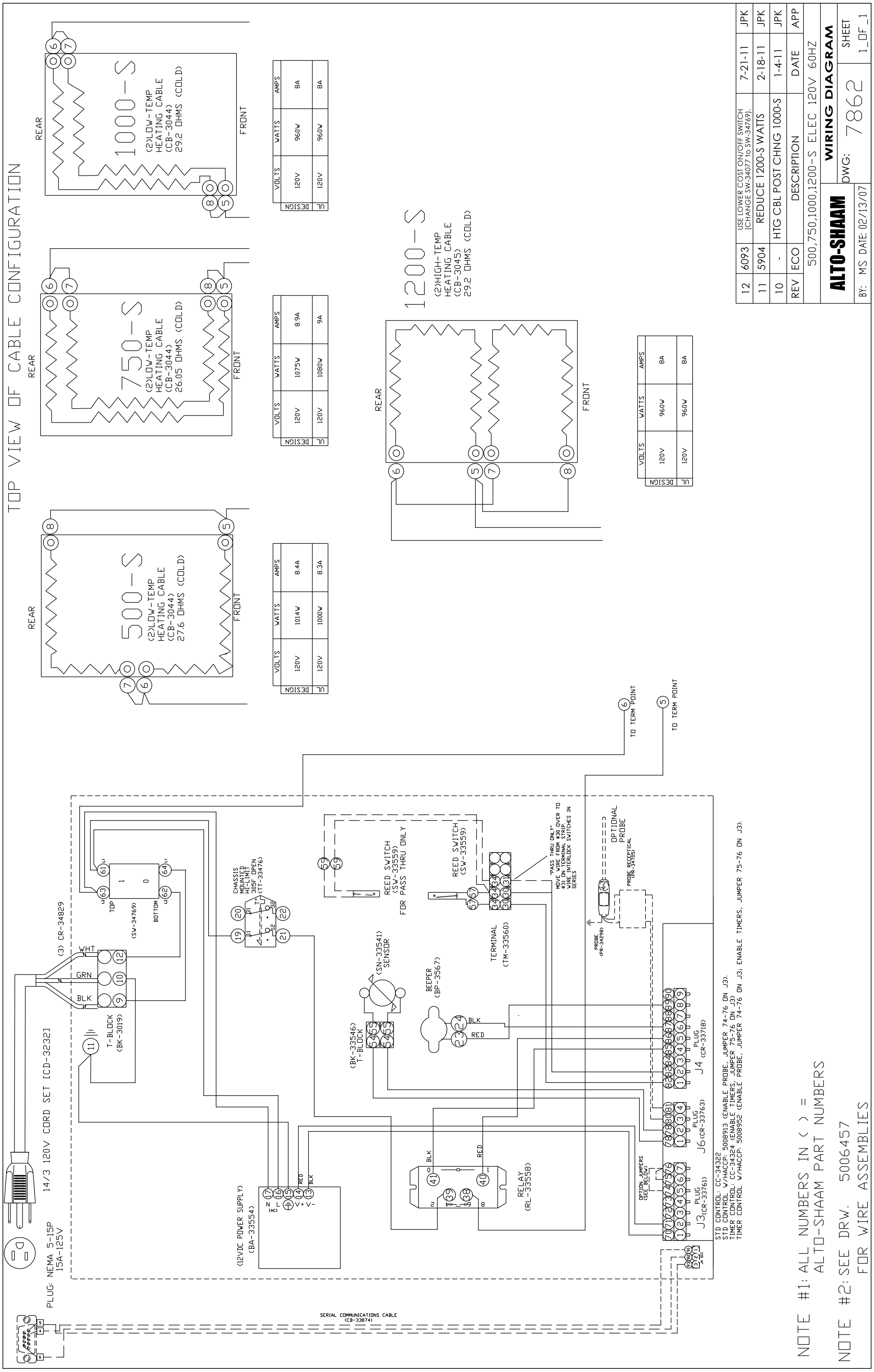
REV	ECO	DESCRIPTION	DATE	APP
8	5904	REDUCE 1200-S WATTS	2-18-11	JPK
7	5727	FIX WIRE ASSEMBLY TYPO	1-20-10	JPK
6	-	HTG CBL POST CHNG 1000-S	1-4-11	JPK

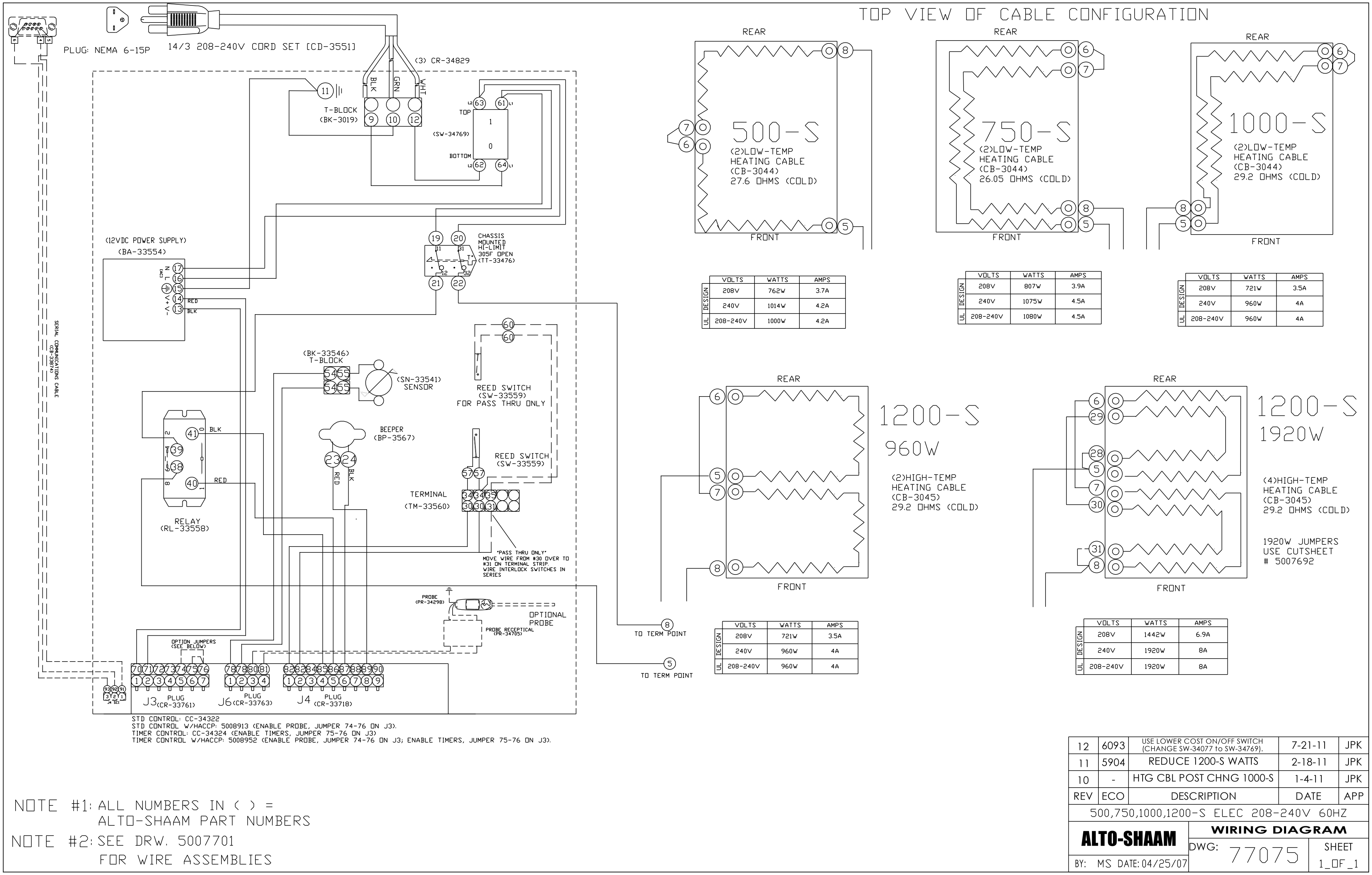
500,750,1000,1200-S 208-240V 60HZ

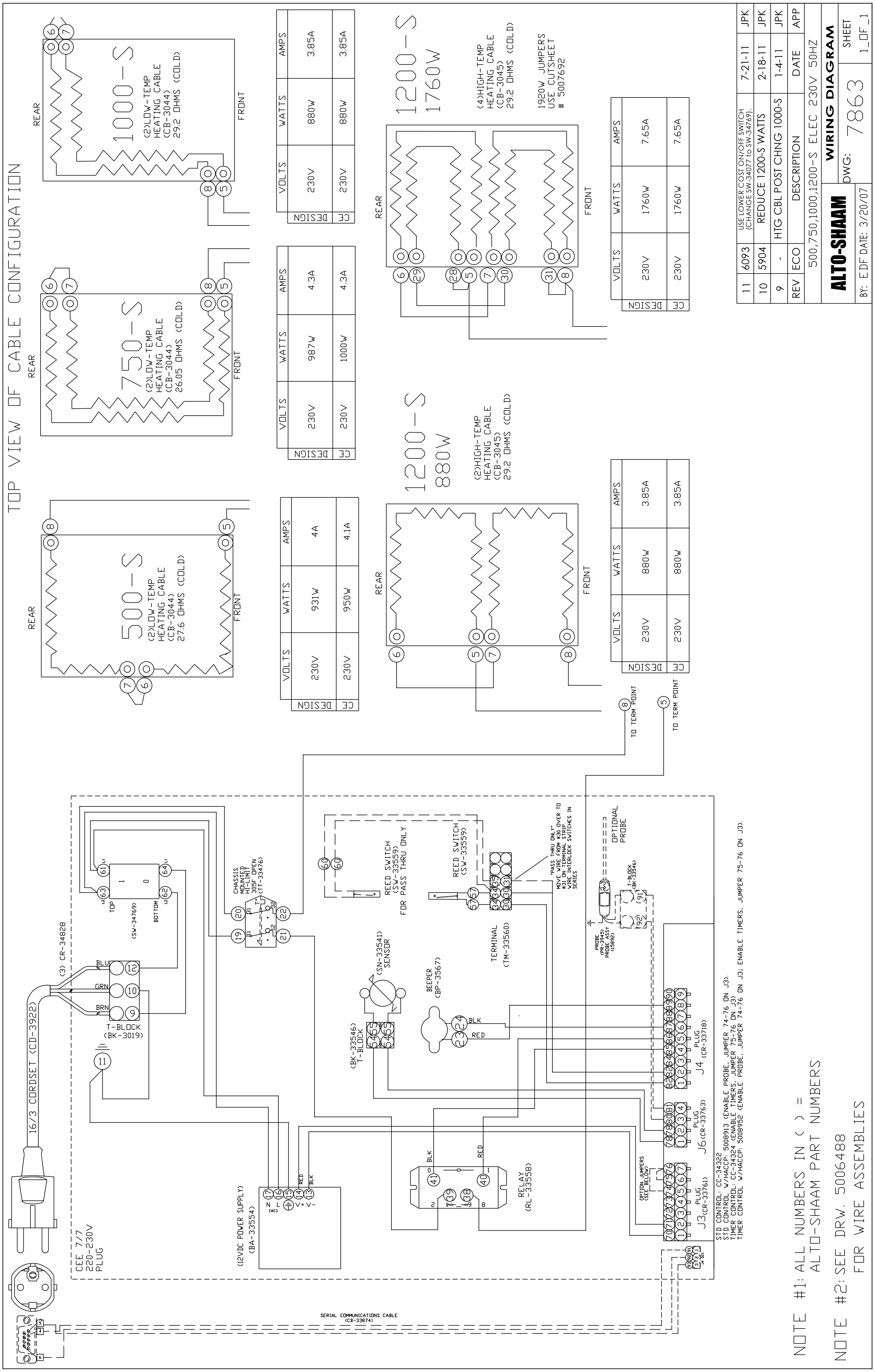
ALTO-SHAAM — WIRING DIAGRAM

BY: JPK DATE: 1/16/08 — DWG: 77195 — SHEET 1_OF_1

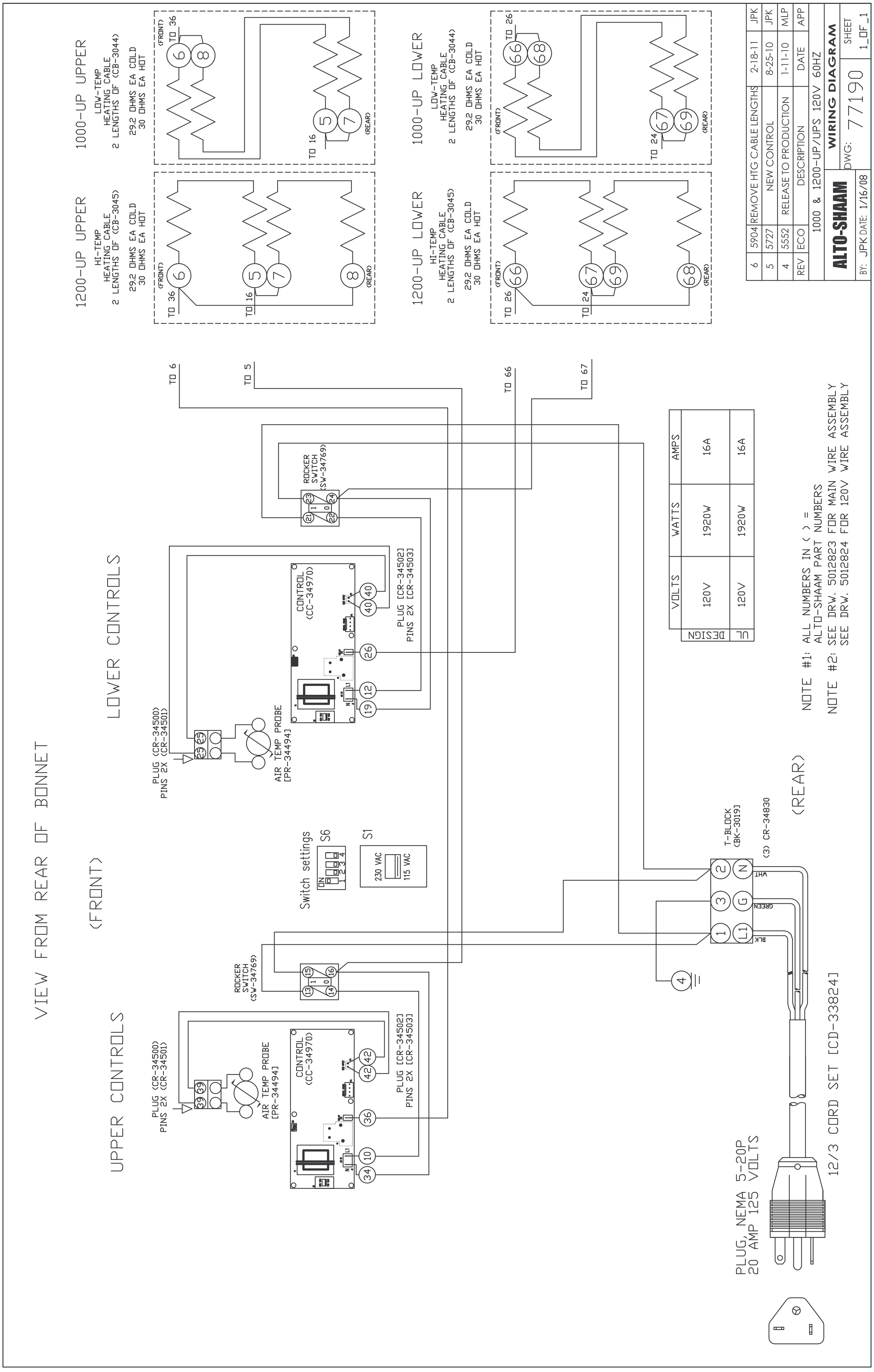

VIEW FROM REAR OF BONNET
(FRONT)
Switch settings
S6
S1
230 VAC
115 VAC
PLUG (CR-34500)
PINS 2X (CR-34501)
AIR TEMP PROBE
[PR-34494]
CONTROL
(CC-34970)
PLUG [CR-34502]
PINS 2X [CR-34503]
ROCKER SWITCH (SW-34769)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
300 ONLY
TO 5
TO 8
(CD-33925)
FOR U.K. USE ONLY
T-BLOCK (BK-3019)
(3) CR-34829
BRN GRN BLU
PLUG, CEE 7/7 (SCHUKO) 16 AMP 250V (#701410)
CORD SET CD-3922
(REAR)
300-S
LOW-TEMP HEATING PAD (EL-29740) 66.2 OHMS (COLD)
500-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 27.6 OHMS (COLD) 28.4 OHMS (HOT)
750-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 26.05 OHMS (COLD) 26.8 OHMS (HOT)
1000-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 29.2 OHMS (COLD) 30.0 OHMS (HOT)
1200-S
(2)HIGH-TEMP HEATING CABLE (CB-3045) 29.2 OHMS (COLD) 30.0 OHMS (HOT)
HIGH WATT JUMPERS USE CUTSHEET # 5007692
* DASHED LINES ARE HIGH WATT MODEL
FRONT
REAR
TO 24
TO 32
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5012835 FOR MAIN WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
SEE DRW. 5012838 FOR 230V WIRE ASSEMBLY [FOR 500, 750, 1000 AND 1200]
SEE DRW. 5015444 FOR MAIN WIRE ASSEMBLY [FOR 300]
SEE DRW. 5015446 FOR 230V WIRE ASSEMBLY [FOR 300]
SEE DRW 5007692 FOR HIGH WATT JUMPERS [FOR 500, 750, 1000 AND 1200]
300-S: DESIGN 230V 800W 3.85A; CE 230V W A
500-S: DESIGN 230V 931W 4A; CE 230V 950W 4.1A
750-S: DESIGN 230V 987W 4.3A; CE 230V 1000W 4.3A
1000-S: DESIGN 230V 880W 3.85A; CE 230V 880W 3.85A
1200-S: DESIGN 230V 880W 3.85A; CE 230V 880W 3.85A
1200-S HIGH WATT MODEL: DESIGN 230V 1760W 7.65A; CE 230V 1760W 7.65A
13 6327 Add 300-S HI-LIMIT ,OMIT ENTH 5/04/12 TJG
12 6291 ADD CD-33925 FOR UK 2/27/12 NVA
11 5904 REDUCE 1200-S WATTS 2-18-11 JPK
REV ECO DESCRIPTION DATE APP
300,500,750,1000,1200-S 230V 50HZ
ALTO-SHAAM
WIRING DIAGRAM
DWG: 77196
SHEET 1_OF_1
BY: JPK DATE: 1/16/08


TOP VIEW OF CABLE CONFIGURATION
500-S
(2)LOW-TEMP
HEATING CABLE
(CB-3044)
27.6 OHMS (COLD)
750-S
(2)LOW-TEMP
HEATING CABLE
(CB-3044)
26.05 OHMS (COLD)
1000-S
(2)LOW-TEMP
HEATING CABLE
(CB-3044)
29.2 OHMS (COLD)
1200-S
(2)HIGH-TEMP
HEATING CABLE
(CB-3045)
29.2 OHMS (COLD)
REAR
FRONT
UL DESIGN
VOLTS
WATTS
AMPS
120V
1014W
8.4A
1000W
8.3A
1075W
8.9A
1080W
9A
960W
8A
TO TERM POINT
PLUG: NEMA 5-15P
15A-125V
14/3 120V CORD SET (CD-3232)
(3) CR-34829
WHT
GRN
BLK
T-BLOCK
(BK-3019)
(SW-34769)
TOP
BOTTOM
CHASSIS MOUNTED HI-LIMIT
(12VDC POWER SUPPLY)
(BA-33554)
REED SWITCH
(SW-33559)
FOR PASS THRU ONLY
(SN-33541)
SENSOR
(BK-33546)
T-BLOCK
BEEPER
(BP-3567)
TERMINAL
(TM-33560)
RED
RELAY
(RL-33558)
OPTIONAL PROBE
J3 (CR-33761) PLUG
J6 (CR-33763) PLUG
J4 (CR-33718) PLUG
STD CONTROL: CC-34322
SERIAL COMMUNICATIONS CABLE
(CB-33874)
NOTE #1: ALL NUMBERS IN ( ) =
ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5006457
FOR WIRE ASSEMBLIES
12 | 6093 | USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). | 7-21-11 | JPK
11 | 5904 | REDUCE 1200-S WATTS | 2-18-11 | JPK
10 | - | HTG CBL POST CHNG 1000-S | 1-4-11 | JPK
REV | ECO | DESCRIPTION | DATE | APP
500,750,1000,1200-S ELEC 120V 60HZ
ALTO-SHAAM
WIRING DIAGRAM
BY: MS DATE: 02/13/07
DWG: 7862
SHEET 1_OF_1

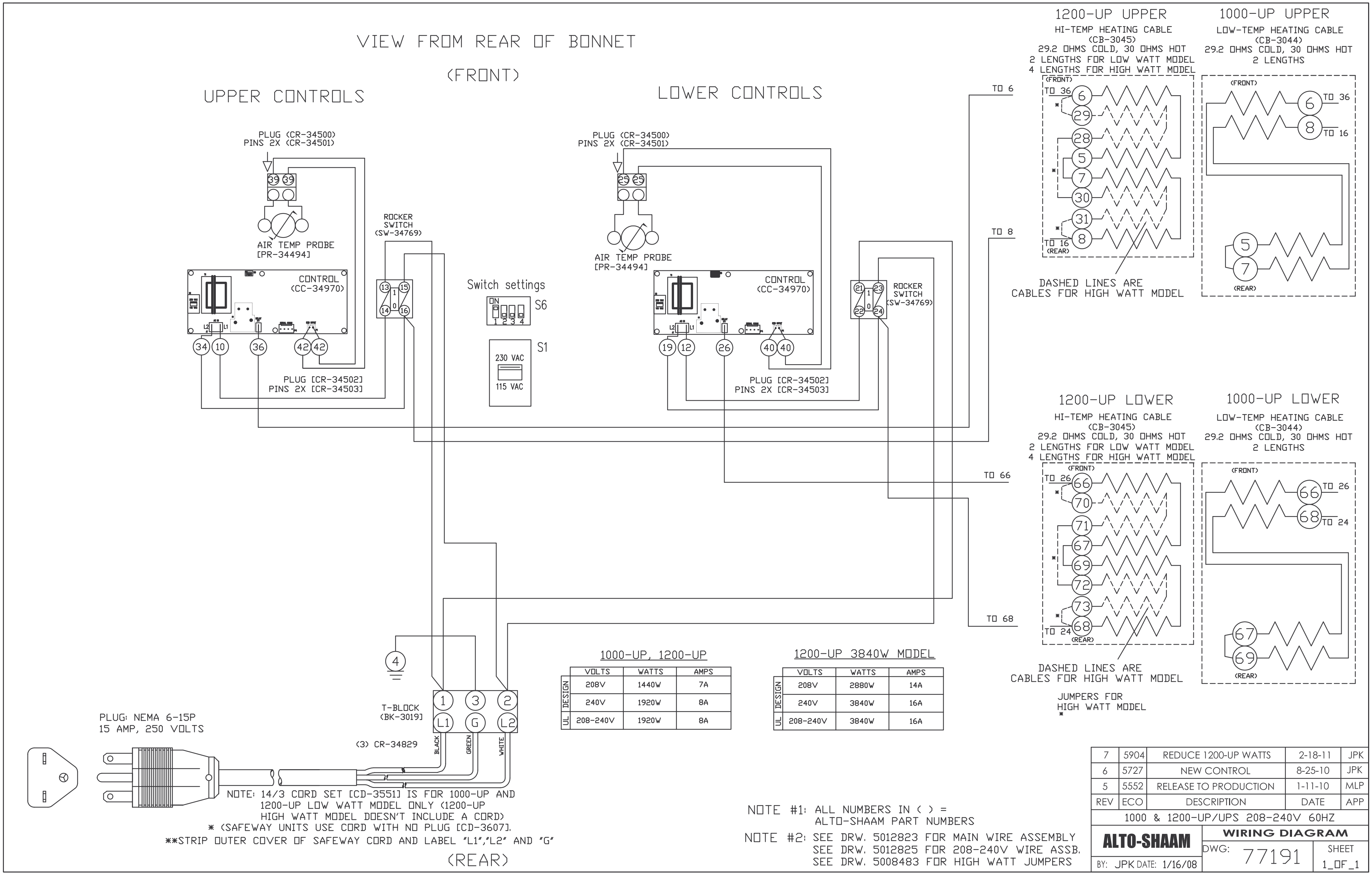

TOP VIEW OF CABLE CONFIGURATION
REAR
FRONT
500-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 27.6 OHMS (COLD)
UL DESIGN | VOLTS | WATTS | AMPS
208V 762W 3.7A
240V 1014W 4.2A
208-240V 1000W 4.2A
750-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 26.05 OHMS (COLD)
208V 807W 3.9A
240V 1075W 4.5A
208-240V 1080W 4.5A
1000-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 29.2 OHMS (COLD)
208V 721W 3.5A
240V 960W 4A
208-240V 960W 4A
1200-S 960W
(2)HIGH-TEMP HEATING CABLE (CB-3045) 29.2 OHMS (COLD)
208V 721W 3.5A
240V 960W 4A
208-240V 960W 4A
1200-S 1920W
(4)HIGH-TEMP HEATING CABLE (CB-3045) 29.2 OHMS (COLD)
1920W JUMPERS USE CUTSHEET # 5007692
208V 1442W 6.9A
240V 1920W 8A
208-240V 1920W 8A
TO TERM POINT
PLUG: NEMA 6-15P
14/3 208-240V CORD SET [CD-3551]
(3) CR-34829
BLK GRN WHT
T-BLOCK (BK-3019)
TOP (SW-34769) BOTTOM
(12VDC POWER SUPPLY) (BA-33554)
RED BLK
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
SERIAL COMMUNICATIONS CABLE (CB-33874)
(BK-33546) T-BLOCK
(SN-33541) SENSOR
REED SWITCH (SW-33559) FOR PASS THRU ONLY
BEEPER (BP-3567)
REED SWITCH (SW-33559)
TERMINAL (TM-33560)
"PASS THRU ONLY" MOVE WIRE FROM #30 OVER TO #31 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
RELAY (RL-33558)
PROBE (PR-34298)
OPTIONAL PROBE
PROBE RECEPTICAL (PR-34705)
OPTION JUMPERS (SEE BELOW)
J3 PLUG (CR-33761)
J6 PLUG (CR-33763)
J4 PLUG (CR-33718)
STD CONTROL: CC-34322
STD CONTROL W/HACCP: 5008913 (ENABLE PROBE, JUMPER 74-76 ON J3).
TIMER CONTROL: CC-34324 (ENABLE TIMERS, JUMPER 75-76 ON J3)
TIMER CONTROL W/HACCP: 5008952 (ENABLE PROBE, JUMPER 74-76 ON J3; ENABLE TIMERS, JUMPER 75-76 ON J3).
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5007701 FOR WIRE ASSEMBLIES
12 | 6093 | USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). | 7-21-11 | JPK
11 | 5904 | REDUCE 1200-S WATTS | 2-18-11 | JPK
10 | - | HTG CBL POST CHNG 1000-S | 1-4-11 | JPK
REV | ECO | DESCRIPTION | DATE | APP
500,750,1000,1200-S ELEC 208-240V 60HZ
ALTO-SHAAM
WIRING DIAGRAM
DWG: 77075
SHEET 1_OF_1
BY: MS DATE: 04/25/07



TOP VIEW OF CABLE CONFIGURATION
500-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 27.6 OHMS (COLD)
750-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 26.05 OHMS (COLD)
1000-S
(2)LOW-TEMP HEATING CABLE (CB-3044) 29.2 OHMS (COLD)
1200-S 880W
(2)HIGH-TEMP HEATING CABLE (CB-3045) 29.2 OHMS (COLD)
1200-S 1760W
(4)HIGH-TEMP HEATING CABLE (CB-3045) 29.2 OHMS (COLD)
1920W JUMPERS USE CUTSHEET # 5007692
REAR
FRONT
DESIGN VOLTS WATTS AMPS
CE
230V 931W 4A
230V 950W 4.1A
230V 987W 4.3A
230V 1000W 4.3A
230V 880W 3.85A
230V 1760W 7.65A
TO TERM POINT
CEE 7/7 220-230V PLUG
16/3 CORDSET (CD-3922)
(3) CR-34828
BLU GRN BRN
T-BLOCK (BK-3019)
TOP BOTTOM (SW-34769)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
REED SWITCH (SW-33559) FOR PASS THRU ONLY
REED SWITCH (SW-33559)
TERMINAL (TM-33560)
"PASS THRU ONLY" MOVE WIRE FROM #30 OVER TO #31 ON TERMINAL STRIP WIRE INTERLOCK SWITCHES IN SERIES
OPTIONAL PROBE
T-BLOCK (BK-33546)
(SN-33541) SENSOR
(BK-33546) T-BLOCK
BEEPER (BP-3567)
BLK RED
(12VDC POWER SUPPLY) (BA-33554)
RELAY (RL-33558)
PLUG (CR-33761) J3
PLUG (CR-33763) J6
PLUG (CR-33718) J4
OPTION JUMPERS (SEE BELOW)
STD CONTROL: CC-34322
STD CONTROL W/HACCP: 5008913 (ENABLE PROBE, JUMPER 74-76 ON J3).
TIMER CONTROL: CC-34324 (ENABLE TIMERS, JUMPER 75-76 ON J3)
TIMER CONTROL W/HACCP: 5008952 (ENABLE PROBE, JUMPER 74-76 ON J3; ENABLE TIMERS, JUMPER 75-76 ON J3).
SERIAL COMMUNICATIONS CABLE (CB-33874)
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5006488 FOR WIRE ASSEMBLIES
11 6093 USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). 7-21-11 JPK
10 5904 REDUCE 1200-S WATTS 2-18-11 JPK
9 - HTG CBL POST CHNG 1000-S 1-4-11 JPK
REV ECO DESCRIPTION DATE APP
500,750,1000,1200-S ELEC 230V 50HZ
ALTO-SHAAM
WIRING DIAGRAM
BY: EDF DATE: 3/20/07
DWG: 7863
SHEET 1_OF_1



VIEW FROM REAR OF BONNET
(FRONT)
(REAR)
UPPER CONTROLS
LOWER CONTROLS
1200-UP UPPER
HI-TEMP HEATING CABLE 2 LENGTHS OF (CB-3045)
29.2 OHMS EA COLD 30 OHMS EA HOT
1000-UP UPPER
LOW-TEMP HEATING CABLE 2 LENGTHS OF (CB-3044)
29.2 OHMS EA COLD 30 OHMS EA HOT
1200-UP LOWER
HI-TEMP HEATING CABLE 2 LENGTHS OF (CB-3045)
29.2 OHMS EA COLD 30 OHMS EA HOT
1000-UP LOWER
LOW-TEMP HEATING CABLE 2 LENGTHS OF (CB-3044)
29.2 OHMS EA COLD 30 OHMS EA HOT
ROCKER SWITCH (SW-34769)
CONTROL (CC-34970)
PLUG [CR-34502] PINS 2X [CR-34503]
PLUG (CR-34500) PINS 2X (CR-34501)
AIR TEMP PROBE [PR-34494]
Switch settings S6
S1
230 VAC
115 VAC
T-BLOCK (BK-3019)
(3) CR-34830
WHT
GREEN
BLK
12/3 CORD SET [CD-33824]
PLUG, NEMA 5-20P 20 AMP 125 VOLTS
	VOLTS	WATTS	AMPS
DESIGN	120V	1920W	16A
UL	120V	1920W	16A
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5012823 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012824 FOR 120V WIRE ASSEMBLY
6 | 5904 | REMOVE HTG CABLE LENGTHS | 2-18-11 | JPK
5 | 5727 | NEW CONTROL | 8-25-10 | JPK
4 | 5552 | RELEASE TO PRODUCTION | 1-11-10 | MLP
REV | ECO | DESCRIPTION | DATE | APP
1000 & 1200-UP/UPS 120V 60HZ
ALTO-SHAAM
WIRING DIAGRAM
DWG: 77190
SHEET 1 OF 1
BY: JPK DATE: 1/16/08



1000-UP, 1200-UP

UL DESIGN	VOLTS	WATTS	AMPS
	208V	1440W	7A
	240V	1920W	8A
	208-240V	1920W	8A

1200-UP 3840W MODEL

UL DESIGN	VOLTS	WATTS	AMPS
	208V	2880W	14A
	240V	3840W	16A
	208-240V	3840W	16A

NOTE: 14/3 CORD SET [CD-3551] IS FOR 1000-UP AND 1200-UP LOW WATT MODEL ONLY (1200-UP HIGH WATT MODEL DOESN'T INCLUDE A CORD)
* (SAFEWAY UNITS USE CORD WITH NO PLUG [CD-3607].
**STRIP OUTER COVER OF SAFEWAY CORD AND LABEL "L1","L2" AND "G"

NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS

NOTE #2: SEE DRW. 5012823 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012825 FOR 208-240V WIRE ASSB.
SEE DRW. 5008483 FOR HIGH WATT JUMPERS

REV	ECO	DESCRIPTION	DATE	APP
7	5904	REDUCE 1200-UP WATTS	2-18-11	JPK
6	5727	NEW CONTROL	8-25-10	JPK
5	5552	RELEASE TO PRODUCTION	1-11-10	MLP

1000 & 1200-UP/UPS 208-240V 60HZ

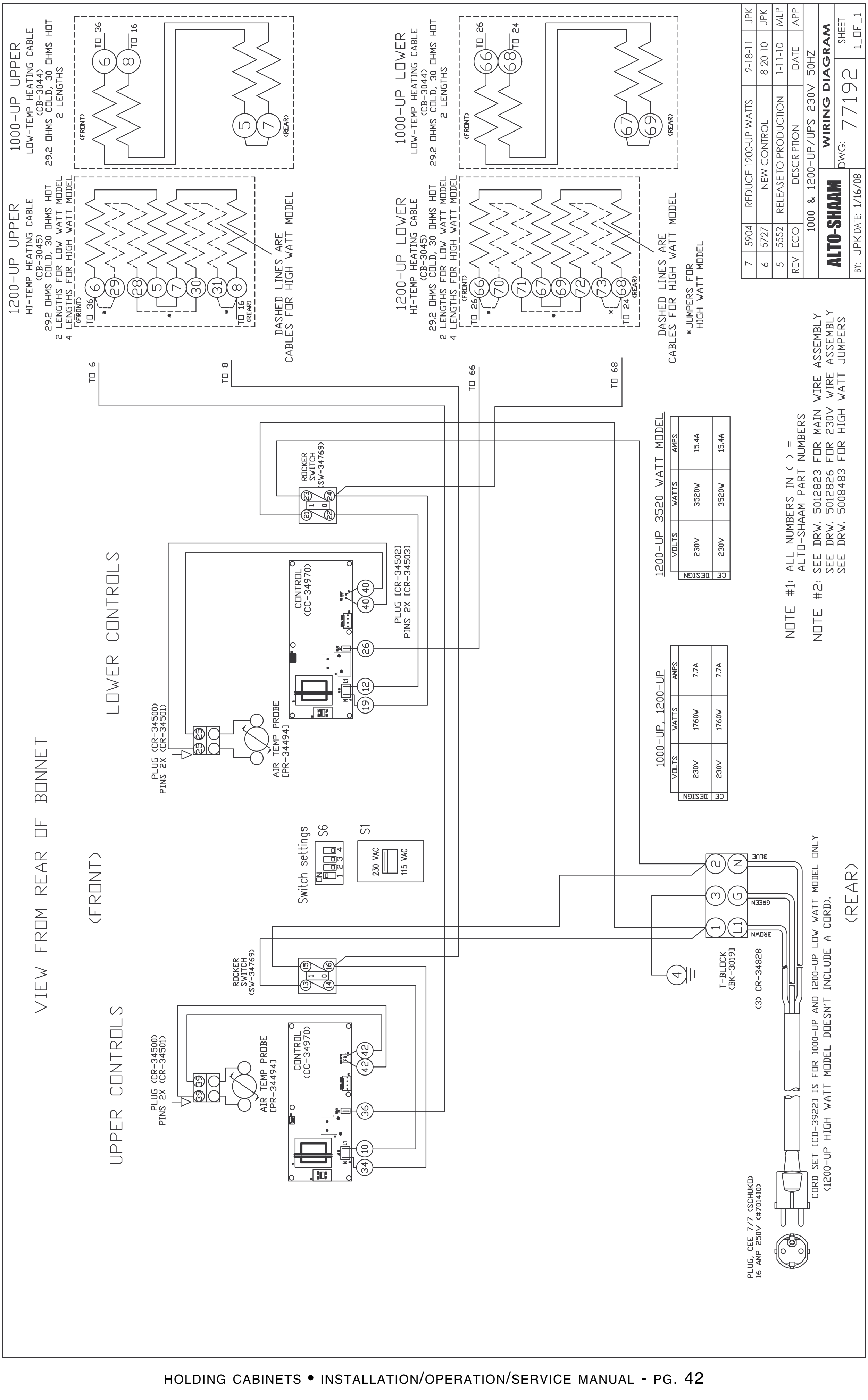
ALTO-SHAAM

WIRING DIAGRAM

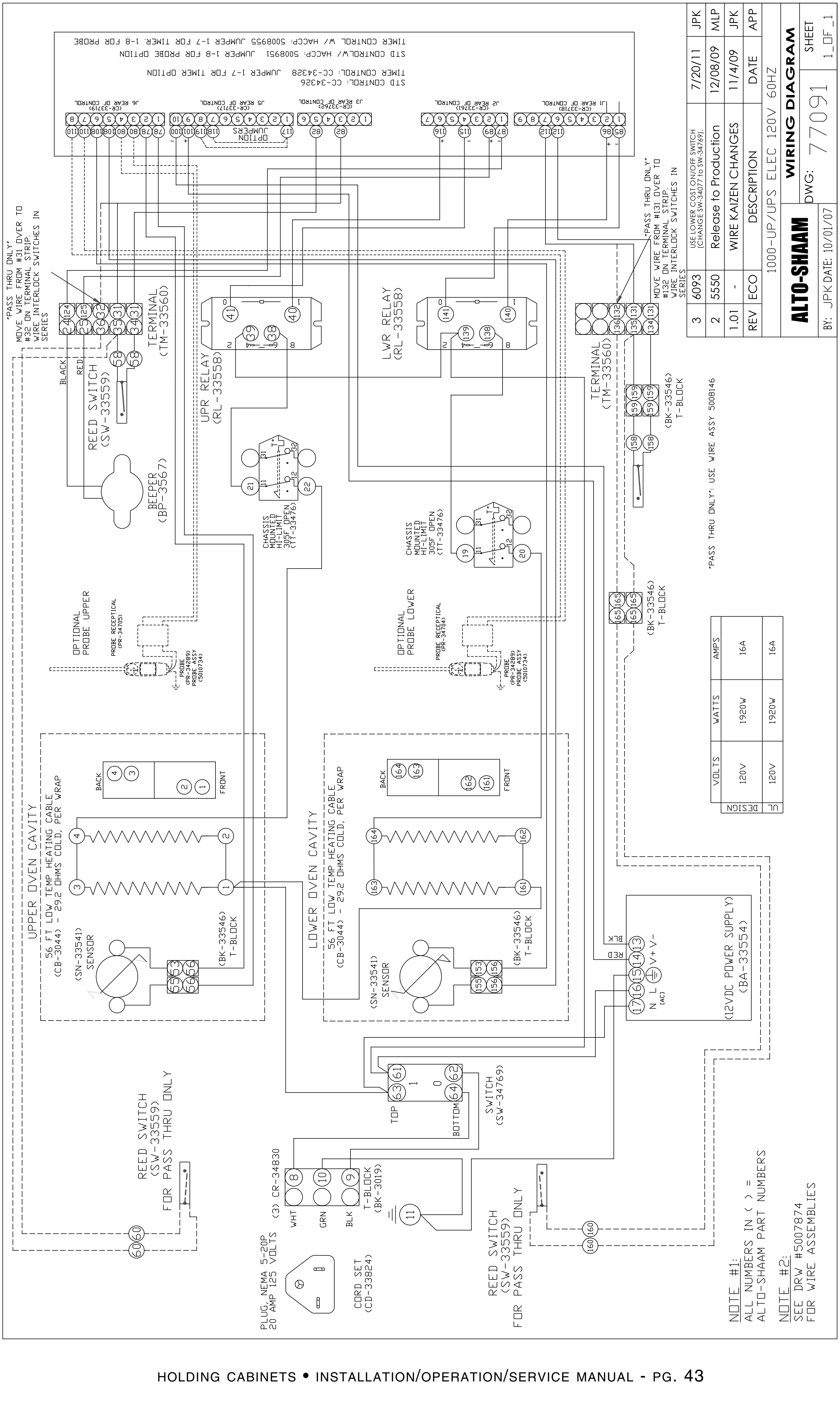
DWG: 77191

SHEET 1_OF_1

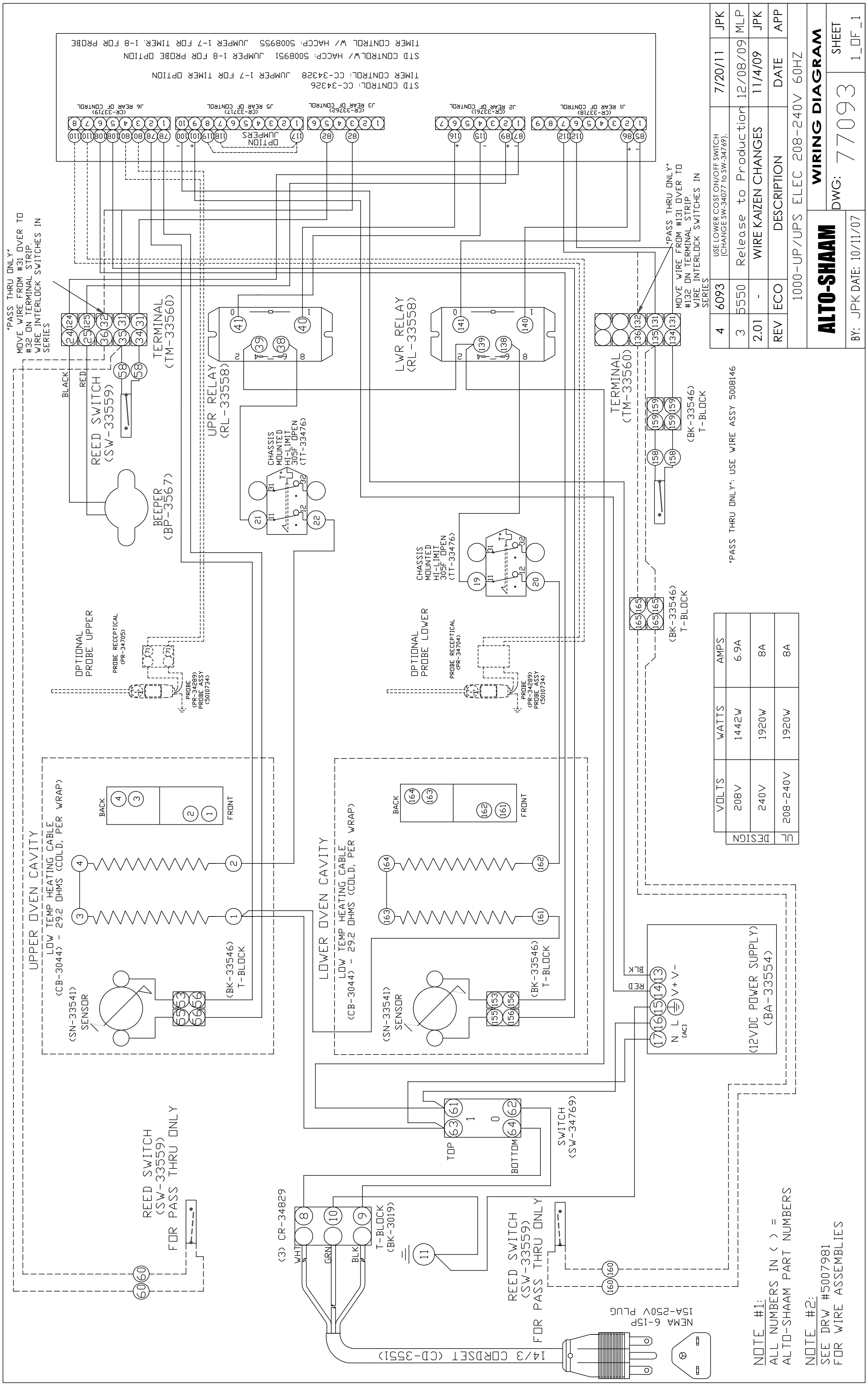
BY: JPK DATE: 1/16/08

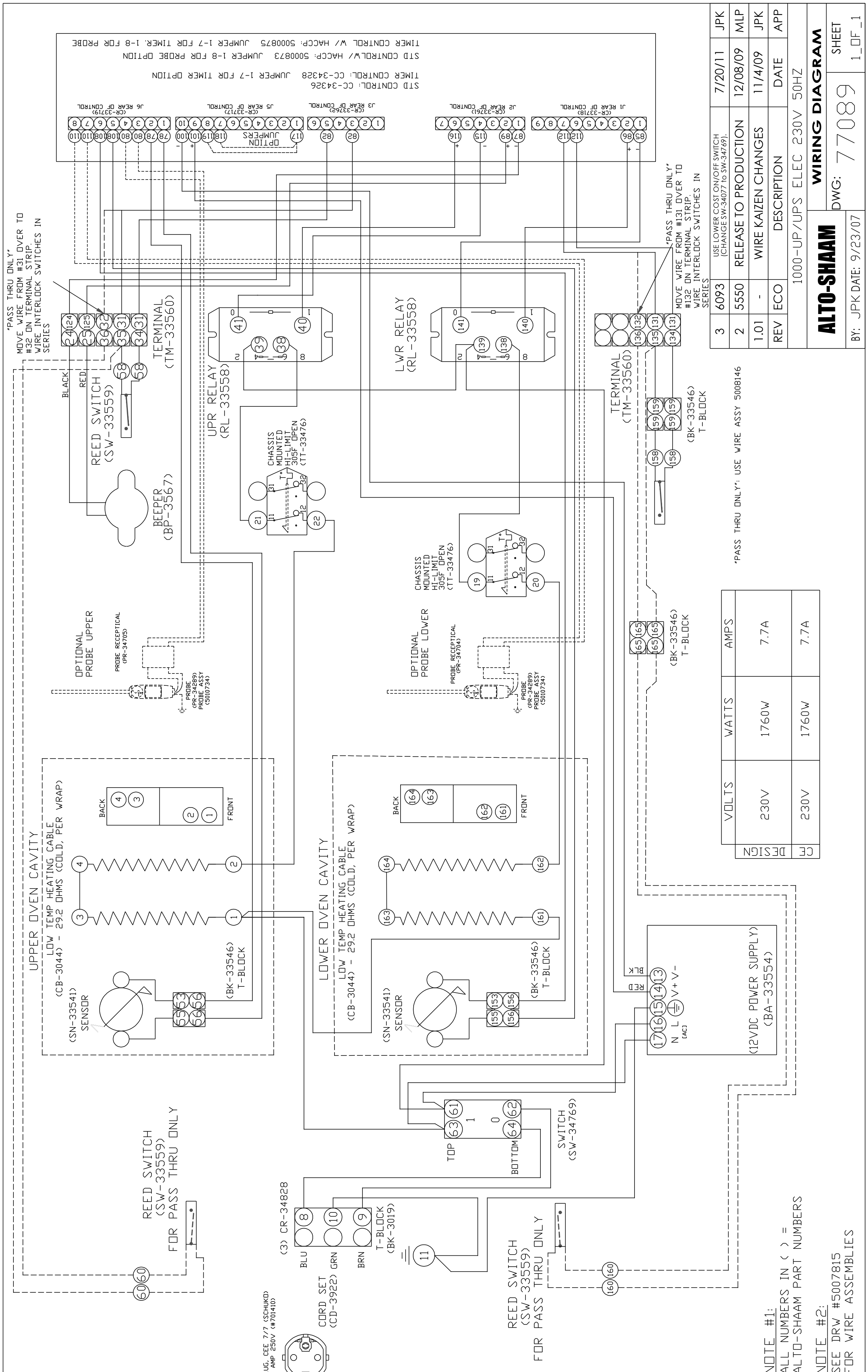


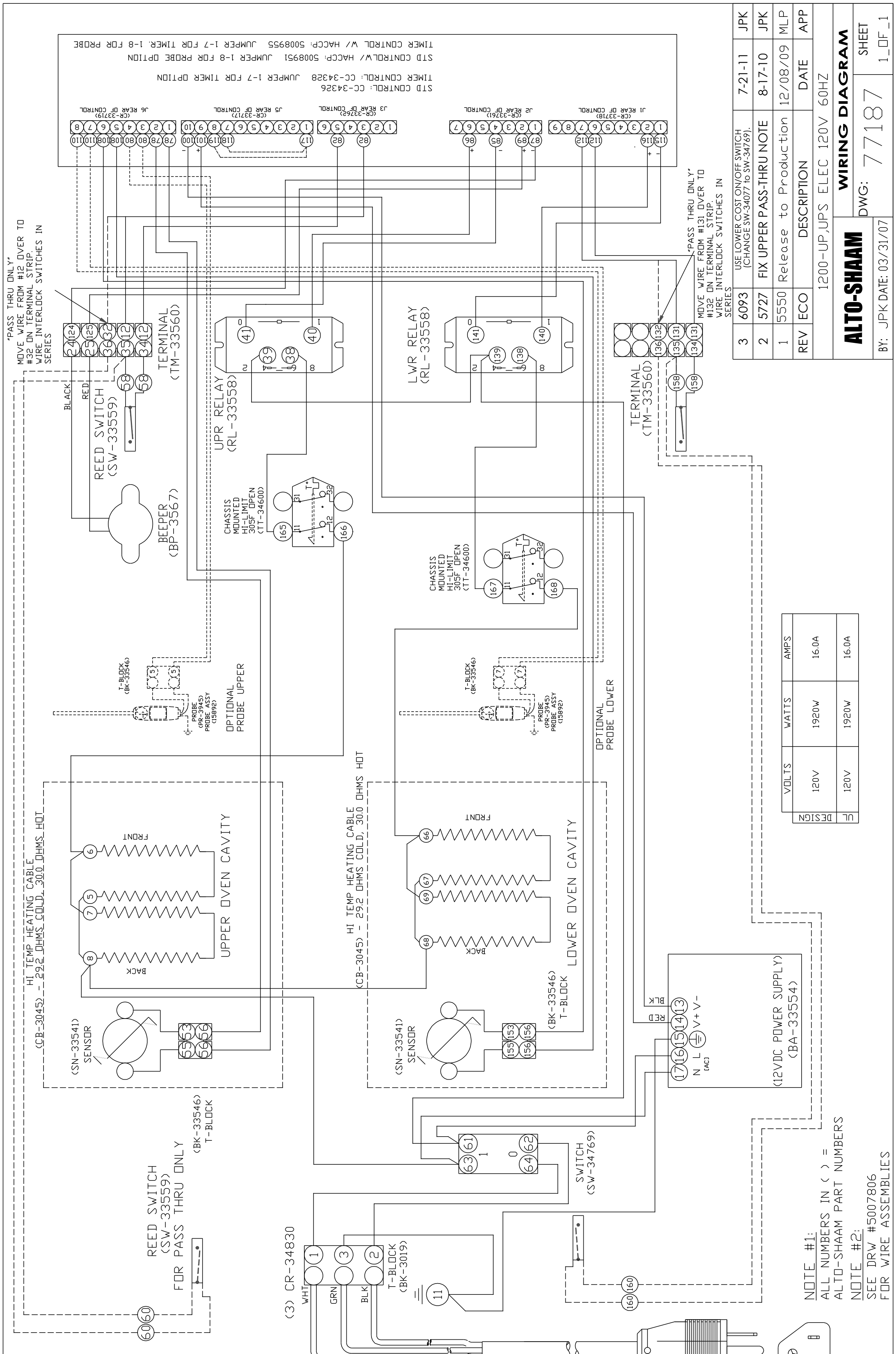
VIEW FROM REAR OF BONNET
(FRONT)
(REAR)
UPPER CONTROLS
LOWER CONTROLS
1200-UP UPPER
HI-TEMP HEATING CABLE
(CB-3045)
29.2 OHMS COLD, 30 OHMS HOT
2 LENGTHS FOR LOW WATT MODEL
4 LENGTHS FOR HIGH WATT MODEL
1000-UP UPPER
LOW-TEMP HEATING CABLE
(CB-3044)
29.2 OHMS COLD, 30 OHMS HOT
2 LENGTHS
1200-UP LOWER
HI-TEMP HEATING CABLE
(CB-3045)
29.2 OHMS COLD, 30 OHMS HOT
2 LENGTHS FOR LOW WATT MODEL
4 LENGTHS FOR HIGH WATT MODEL
1000-UP LOWER
LOW-TEMP HEATING CABLE
(CB-3044)
29.2 OHMS COLD, 30 OHMS HOT
2 LENGTHS
DASHED LINES ARE
CABLES FOR HIGH WATT MODEL
* JUMPERS FOR
HIGH WATT MODEL
TO 6
TO 8
TO 66
TO 68
TO 36
TO 16
TO 26
TO 24
ROCKER SWITCH (SW-34769)
CONTROL (CC-34970)
PLUG [CR-34502]
PINS 2X [CR-34503]
PLUG (CR-34500)
PINS 2X (CR-34501)
AIR TEMP PROBE
[PR-34494]
Switch settings
S6
S1
ON
230 VAC
115 VAC
T-BLOCK
(BK-3019)
(3) CR-34828
BLUE
GREEN
BROWN
PLUG, CEE 7/7 (SCHUKO)
16 AMP 250V (#70141O)
CORD SET [CD-3922] IS FOR 1000-UP AND 1200-UP LOW WATT MODEL ONLY
(1200-UP HIGH WATT MODEL DOESN'T INCLUDE A CORD).
1000-UP, 1200-UP
CE DESIGN | VOLTS 230V | WATTS 1760W | AMPS 7.7A
CE DESIGN | VOLTS 230V | WATTS 1760W | AMPS 7.7A
1200-UP 3520 WATT MODEL
CE DESIGN | VOLTS 230V | WATTS 3520W | AMPS 15.4A
CE DESIGN | VOLTS 230V | WATTS 3520W | AMPS 15.4A
NOTE #1: ALL NUMBERS IN ( ) =
ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW. 5012823 FOR MAIN WIRE ASSEMBLY
SEE DRW. 5012826 FOR 230V WIRE ASSEMBLY
SEE DRW. 5008483 FOR HIGH WATT JUMPERS
7 | 5904 | REDUCE 1200-UP WATTS | 2-18-11 | JPK
6 | 5727 | NEW CONTROL | 8-20-10 | JPK
5 | 5552 | RELEASE TO PRODUCTION | 1-11-10 | MLP
REV | ECO | DESCRIPTION | DATE | APP
1000 & 1200-UP/UPS 230V 50HZ
ALTO-SHAAM
WIRING DIAGRAM
DWG: 77192
SHEET 1 OF 1
BY: JPK DATE: 1/16/08

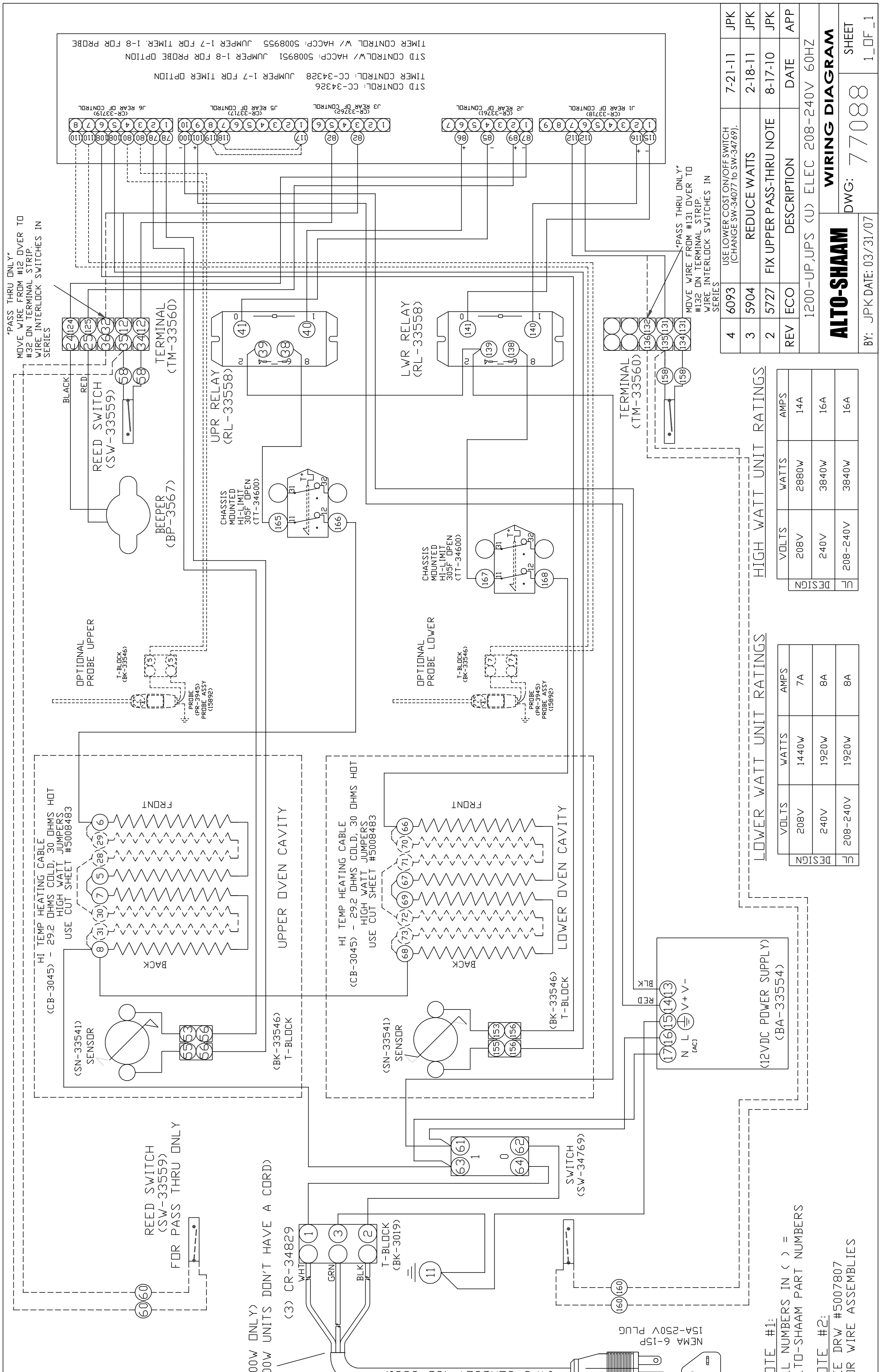


ALTO-SHAAM
WIRING DIAGRAM
DWG: 77091
SHEET 1_OF_1
BY: JPK DATE: 10/01/07
1000-UP/UPS ELEC 120V 60HZ
3 | 6093 | USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). | 7/20/11 | JPK
2 | 5550 | Release to Production | 12/08/09 | MLP
1.01 | - | WIRE KAIZEN CHANGES | 11/4/09 | JPK
REV | ECO | DESCRIPTION | DATE | APP
DESIGN | VOLTS | WATTS | AMPS
UL | 120V | 1920W | 16A
120V | 1920W | 16A
STD CONTROL: CC-34326
TIMER CONTROL: CC-34328 JUMPER 1-7 FOR TIMER OPTION
STD CONTROL W/ HACCP: 5008951 JUMPER 1-8 FOR PROBE OPTION
TIMER CONTROL W/ HACCP: 5008955 JUMPER 1-7 FOR TIMER, 1-8 FOR PROBE
UPPER OVEN CAVITY
LOWER OVEN CAVITY
56 FT LOW TEMP HEATING CABLE (CB-3044) - 29.2 OHMS COLD, PER WRAP
UPR RELAY (RL-33558)
LWR RELAY (RL-33558)
TERMINAL (TM-33560)
REED SWITCH (SW-33559)
BEEPER (BP-3567)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
OPTIONAL PROBE UPPER
OPTIONAL PROBE LOWER
(SN-33541) SENSOR
(BK-33546) T-BLOCK
(12VDC POWER SUPPLY) (BA-33554)
SWITCH (SW-34769)
"PASS THRU ONLY" MOVE WIRE FROM #131 OVER TO #132 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
"PASS THRU ONLY": USE WIRE ASSY 5008146
REED SWITCH (SW-33559) FOR PASS THRU ONLY
PLUG, NEMA 5-20P 20 AMP 125 VOLTS
CORD SET (CD-33824)
(3) CR-34830
T-BLOCK (BK-3019)
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW #5007874 FOR WIRE ASSEMBLIES


ALTO-SHAAM
WIRING DIAGRAM
DWG: 77093
SHEET 1_OF_1
BY: JPK DATE: 10/11/07
1000-UP/UPS ELEC 208-240V 60HZ
REV | ECO | DESCRIPTION | DATE | APP
2.01 | - | WIRE KAIZEN CHANGES | 11/4/09 | JPK
3 | 5550 | Release to Production | 12/08/09 | MLP
4 | 6093 | USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). | 7/20/11 | JPK
STD CONTROL: CC-34326
TIMER CONTROL: CC-34328 JUMPER 1-7 FOR TIMER OPTION
STD CONTROL W/ HACCP: 5008951 JUMPER 1-8 FOR PROBE OPTION
TIMER CONTROL W/ HACCP: 5008955 JUMPER 1-7 FOR TIMER, 1-8 FOR PROBE
UPR RELAY (RL-33558)
LWR RELAY (RL-33558)
TERMINAL (TM-33560)
REED SWITCH (SW-33559)
BEEPER (BP-3567)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
OPTIONAL PROBE UPPER
OPTIONAL PROBE LOWER
UPPER OVEN CAVITY
LOWER OVEN CAVITY
LOW TEMP HEATING CABLE (CB-3044) - 29.2 OHMS (COLD, PER WRAP)
(SN-33541) SENSOR
(BK-33546) T-BLOCK
(12VDC POWER SUPPLY) (BA-33554)
SWITCH (SW-34769)
REED SWITCH (SW-33559) FOR PASS THRU ONLY
(3) CR-34829
T-BLOCK (BK-3019)
14/3 CORDSET (CD-3551)
NEMA 6-15P 15A-250V PLUG
"PASS THRU ONLY": USE WIRE ASSY 5008146
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW #5007981 FOR WIRE ASSEMBLIES
DESIGN | VOLTS | WATTS | AMPS
| 208V | 1442W | 6.9A
| 240V | 1920W | 8A
UL | 208-240V | 1920W | 8A


ALTO-SHAAM
WIRING DIAGRAM
DWG: 77089
SHEET 1_OF_1
BY: JPK DATE: 9/23/07
1000-UP/UPS ELEC 230V 50HZ
REV ECO DESCRIPTION DATE APP
1.01 - WIRE KAIZEN CHANGES 11/4/09 JPK
2 5550 RELEASE TO PRODUCTION 12/08/09 MLP
3 6093 USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). 7/20/11 JPK
DESIGN VOLTS WATTS AMPS
230V 1760W 7.7A
CE 230V 1760W 7.7A
STD CONTROL: CC-34326
TIMER CONTROL: CC-34328 JUMPER 1-7 FOR TIMER OPTION
STD CONTROLW/ HACCP: 5000873 JUMPER 1-8 FOR PROBE OPTION
TIMER CONTROL W/ HACCP: 5000875 JUMPER 1-7 FOR TIMER, 1-8 FOR PROBE
UPR RELAY (RL-33558)
LWR RELAY (RL-33558)
TERMINAL (TM-33560)
REED SWITCH (SW-33559)
BEEPER (BP-3567)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-33476)
OPTIONAL PROBE UPPER
OPTIONAL PROBE LOWER
UPPER OVEN CAVITY
LOWER OVEN CAVITY
LOW TEMP HEATING CABLE (CB-3044) - 29.2 OHMS (COLD, PER WRAP)
(SN-33541) SENSOR
(BK-33546) T-BLOCK
(12VDC POWER SUPPLY) (BA-33554)
SWITCH (SW-34769)
REED SWITCH (SW-33559) FOR PASS THRU ONLY
(3) CR-34828
T-BLOCK (BK-3019)
CORD SET (CD-3922)
PLUG, CEE 7/7 (SCHUKO) 16 AMP 250V (#70141D)
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW #5007815 FOR WIRE ASSEMBLIES
PASS THRU ONLY USE WIRE ASSY 5008146


TIMER CONTROL W/ HACCP: 5008955 JUMPER 1-7 FOR TIMER, 1-8 FOR PROBE
STD CONTROL W/ HACCP: 5008951 JUMPER 1-8 FOR PROBE OPTION
TIMER CONTROL: CC-34328 JUMPER 1-7 FOR TIMER OPTION
STD CONTROL: CC-34326
"PASS THRU ONLY" MOVE WIRE FROM #12 OVER TO #32 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
"PASS THRU ONLY" MOVE WIRE FROM #131 OVER TO #132 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
TERMINAL (TM-33560)
REED SWITCH (SW-33559)
BEEPER (BP-3567)
UPR RELAY (RL-33558)
LWR RELAY (RL-33558)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-34600)
T-BLOCK (BK-33546)
OPTIONAL PROBE UPPER
OPTIONAL PROBE LOWER
HI TEMP HEATING CABLE (CB-3045) - 29.2 OHMS COLD, 30.0 OHMS HOT
UPPER OVEN CAVITY
LOWER OVEN CAVITY
FRONT
BACK
(SN-33541) SENSOR
(12VDC POWER SUPPLY) (BA-33554)
SWITCH (SW-34769)
REED SWITCH (SW-33559) FOR PASS THRU ONLY
(3) CR-34830
T-BLOCK (BK-3019)
WHT
GRN
BLK
12/3 CORDSET [CD-33824]
PLUG, NEMA 5-20P 20 AMP 125 VOLTS
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW #5007806 FOR WIRE ASSEMBLIES
UL DESIGN VOLTS WATTS AMPS
120V 1920W 16.0A
120V 1920W 16.0A
REV ECO DESCRIPTION DATE APP
3 6093 USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). 7-21-11 JPK
2 5727 FIX UPPER PASS-THRU NOTE 8-17-10 JPK
1 5550 Release to Production 12/08/09 MLP
1200-UP,UPS ELEC 120V 60HZ
ALTO-SHAAM
WIRING DIAGRAM
DWG: 77187
SHEET 1_OF_1
BY: JPK DATE: 03/31/07

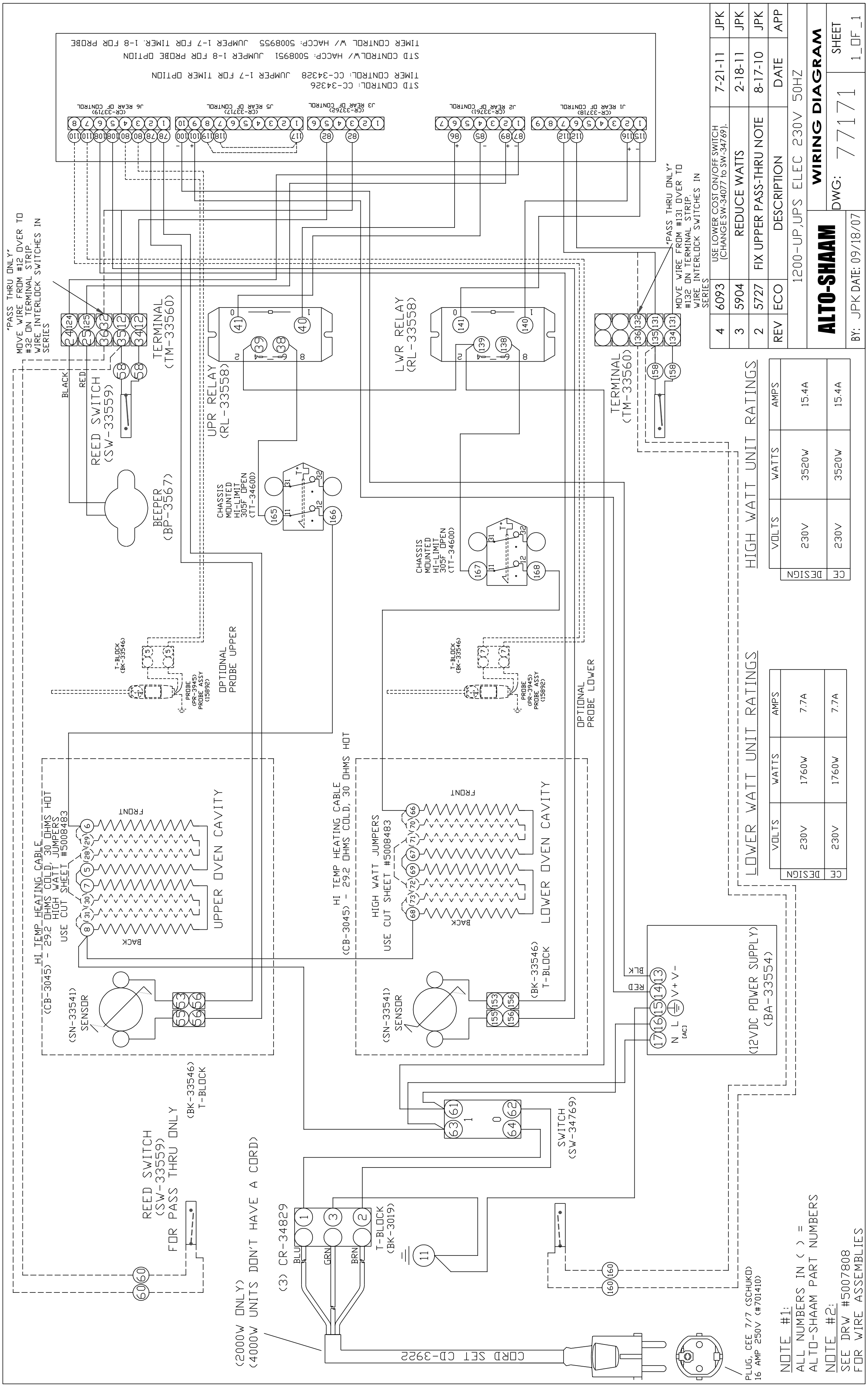


LOWER WATT UNIT RATINGS

	VOLTS	WATTS	AMPS
DESIGN	208V	1440W	7A
	240V	1920W	8A
UL	208-240V	1920W	8A

HIGH WATT UNIT RATINGS

	VOLTS	WATTS	AMPS
DESIGN	208V	2880W	14A
	240V	3840W	16A
UL	208-240V	3840W	16A


ALTO-SHAAM
WIRING DIAGRAM
1200-UP,UPS ELEC 230V 50HZ
DWG: 77171
SHEET 1_OF_1
BY: JPK DATE: 09/18/07
4 6093 USE LOWER COST ON/OFF SWITCH (CHANGE SW-34077 to SW-34769). 7-21-11 JPK
3 5904 REDUCE WATTS 2-18-11 JPK
2 5727 FIX UPPER PASS-THRU NOTE 8-17-10 JPK
REV ECO DESCRIPTION DATE APP
HIGH WATT UNIT RATINGS
CE DESIGN VOLTS 230V WATTS 3520W AMPS 15.4A
DESIGN VOLTS 230V WATTS 3520W AMPS 15.4A
LOWER WATT UNIT RATINGS
CE DESIGN VOLTS 230V WATTS 1760W AMPS 7.7A
DESIGN VOLTS 230V WATTS 1760W AMPS 7.7A
STD CONTROL: CC-34326
TIMER CONTROL: CC-34328 JUMPER 1-7 FOR TIMER OPTION
STD CONTROL W/ HACCP: 5008951 JUMPER 1-8 FOR PROBE OPTION
TIMER CONTROL W/ HACCP: 5008955 JUMPER 1-7 FOR TIMER, 1-8 FOR PROBE
"PASS THRU ONLY" MOVE WIRE FROM #12 OVER TO #32 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
"PASS THRU ONLY" MOVE WIRE FROM #131 OVER TO #132 ON TERMINAL STRIP. WIRE INTERLOCK SWITCHES IN SERIES
TERMINAL (TM-33560)
REED SWITCH (SW-33559)
BEEPER (BP-3567)
UPR RELAY (RL-33558)
LWR RELAY (RL-33558)
CHASSIS MOUNTED HI-LIMIT 305F OPEN (TT-34600)
OPTIONAL PROBE UPPER
OPTIONAL PROBE LOWER
T-BLOCK (BK-33546)
HI TEMP HEATING CABLE (CB-3045) - 29.2 OHMS COLD, 30 OHMS HOT
HIGH WATT JUMPERS USE CUT SHEET #5008483
UPPER OVEN CAVITY
LOWER OVEN CAVITY
FRONT
BACK
SENSOR (SN-33541)
(12VDC POWER SUPPLY) (BA-33554)
SWITCH (SW-34769)
REED SWITCH (SW-33559) FOR PASS THRU ONLY
(3) CR-34829
T-BLOCK (BK-3019)
(2000W ONLY) (4000W UNITS DON'T HAVE A CORD)
CORD SET CD-3922
PLUG, CEE 7/7 (SCHUKO) 16 AMP 250V (#701410)
NOTE #1: ALL NUMBERS IN ( ) = ALTO-SHAAM PART NUMBERS
NOTE #2: SEE DRW #5007808 FOR WIRE ASSEMBLIES

TRANSPORTATION DAMAGE and CLAIMS



All Alto-Shaam equipment is sold F.O.B. shipping point, and when accepted by the carrier, such shipments become the property of the consignee.

Should damage occur in shipment, it is a matter between the carrier and the consignee. In such cases, the carrier is assumed to be responsible for the safe delivery of the merchandise, unless negligence can be established on the part of the shipper.

1. Make an immediate inspection while the equipment is still in the truck or immediately after it is moved to the receiving area. Do not wait until after the material is moved to a storage area.
2. Do not sign a delivery receipt or a freight bill until you have made a proper count and inspection of all merchandise received.
3. Note all damage to packages directly on the carrier's delivery receipt.
4. Make certain the driver signs this receipt. If he refuses to sign, make a notation of this refusal on the receipt.
5. If the driver refuses to allow inspection, write the following on the delivery receipt:
   Driver refuses to allow inspection of containers for visible damage.
6. Telephone the carrier's office immediately upon finding damage, and request an inspection. Mail a written confirmation of the time, date, and the person called.
7. Save any packages and packing material for further inspection by the carrier.
8. Promptly file a written claim with the carrier and attach copies of all supporting paperwork.

We will continue our policy of assisting our customers in collecting claims which have been properly filed and actively pursued. We cannot, however, file any damage claims for you, assume the responsibility of any claims, or accept deductions in payment for such claims.

LIMITED WARRANTY

Alto-Shaam, Inc. warrants to the original purchaser only that any original part that is found to be defective in material or workmanship will, at Alto-Shaam's option, subject to provisions hereinafter stated, be replaced with a new or rebuilt part.

The parts warranty period is as follows:

For the refrigeration compressor on Alto-Shaam Quickchillers™, five (5) years from the date of installation.

For the heating element on Halo Heat® cooking and holding ovens, as long as the original purchaser owns the oven. This excludes holding only equipment.

For all other parts, one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first.

The labor warranty period is one (1) year from the date of installation or fifteen (15) months from the shipping date, whichever occurs first.

Alto-Shaam will bear normal labor charges performed during standard business hours, excluding overtime, holiday rates or any additional fees.

To be valid, a warranty claim must be asserted during the applicable warranty period. This warranty is not transferable.

THIS WARRANTY DOES NOT APPLY TO:

1. Calibration.
2. Replacement of light bulbs, door gaskets, and/or the replacement of glass due to damage of any kind.
3. Equipment damage caused by accident, shipping, improper installation or alteration.
4. Equipment used under conditions of abuse, misuse, carelessness or abnormal conditions, including but not limited to, equipment subjected to harsh or inappropriate chemicals, including but not limited to, compounds containing chloride or quaternary salts, poor water quality, or equipment with missing or altered serial numbers.
5. Damage incurred as a direct result of poor water quality, inadequate maintenance of steam generators and/or surfaces affected by water quality. Water quality and required maintenance of steam generating equipment is the responsibility of the owner/operator.
6. Damage caused by use of any cleaning agent other than Alto-Shaam's Combitherm® Cleaner, including but not limited to damage due to chlorine or other harmful chemicals. **Use of Alto-Shaam's Combitherm® Cleaner on Combitherm® ovens is highly recommended.**
7. Any losses or damage resulting from malfunction, including loss of product, food product, revenue, or consequential or incidental damages of any kind.
8. Equipment modified in any manner from original model, substitution of parts other than factory authorized parts, removal of any parts including legs, or addition of any parts.

This warranty is exclusive and is in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Alto-Shaam be liable for loss of use, loss of revenue or profit, or loss of product, or for any indirect, special, incidental, or consequential damages. No person except an officer of Alto-Shaam, Inc. is authorized to modify this warranty or to incur on behalf of Alto-Shaam any other obligation or liability in connection with Alto-Shaam equipment.

Effective November 1, 2011

ALTO-SHAAM

RECORD THE MODEL AND SERIAL NUMBER OF THE APPLIANCE FOR EASY REFERENCE.
ALWAYS REFER TO BOTH MODEL AND SERIAL NUMBER IN ANY CONTACT WITH ALTO-SHAAM REGARDING THIS APPLIANCE.

Model: ______________________ Date Installed: ______________________
Voltage: ______________________ Purchased From: ______________________
Serial Number: ______________________

W164 N9221 Water Street • P.O. Box 450 • Menomonee Falls, Wisconsin 53052-0450 • U.S.A.
PHONE: 262.251.3800 • 800.558-8744 USA/CANADA FAX: 262.251.7067 • 800.329.8744 U.S.A. ONLY
www.alto-shaam.com

PRINTED IN U.S.A.